THE PALESTINE EXPLORATION FUND

NOTES AND NEWS.

WE beg readers and subscribers to read the Report of the Executive Committee for the past year, and the proceedings of the meeting of General Committee, in order to learn what has been the real nature and extent of our operations during the twelve months ending June 30th, and what are our prospects of work for the future.

An abstract of the most important scientific results of Professor Hull's survey has been drawn up by him for the Committee, and will be found in its place on page 160. The Professor is now engaged upon the Geological Memoirs of his journey, and upon a popular account, the first or opening chapter of which was published in the April *Quarterly Statement*. The latter will be issued as a separate volume in October next; the publication of the former will be arranged as soon as possible after it is ready.

Major Kitchener's report on the geological and topographical results of the expedition will be published in the October number of the *Quarterly Statement*. The map has now been completed by Mr. Armstrong from the observations and sketches, and is ready for publication. We may fairly congratulate ourselves on the result of the year's work, which has added to our knowledge, besides a most important study of Palestinian geology, a Survey of the whole of the Wâdy Arabah.

The work of the future, as will be found explained in the Report of the Executive Committee, will depend partly on getting the Sultan's Firman to continue the Survey of Eastern Palestine, and partly *on the seizure of opportunities as they occur*. Thus it is hoped in the next winter that some work similar to that of last year may be successfully carried through.

The "Survey of Western Palestine" is at length completed, after four years of work. No more magnificent monument of similar enterprise has ever been published in any work which has added more to the elucidation of the Bible, the purpose for which it was undertaken. It consists, as now completed, (1) of the Maps of Western Palestine, from the Surveys executed by Captains

Conder and Kitchener, 1871–1878; (2) of three volumes of Memoirs, illustrated by many hundreds of drawings, plans, sections, &c., executed by the officers for this work and never before published; (3) one volume of Name Lists, containing all the modern names collected during the Survey; (4) one volume on the Flora and Fauna of Palestine, by Canon Tristram; (5) one volume on Jerusalem, by Colonel Sir Charles Warren, K.C.M.G., F.R.S., and Captain Conder, R.E.; and (6) a portfolio containing 50 sheets of drawings, prepared by Sir Charles Warren from his excavations, giving for the first time a complete representation of all his discoveries. The copies which remain will be sent out in order of application as they are subscribed, and *no more copies will be printed* except of the last two.

The "Flora and Fauna," by the Rev. Canon Tristram, consists of one volume (of 450 pages), with twenty full-page illustrations, of which thirteen are coloured by hand. The Preface of the geographical and geological relations of the Flora and Fauna endeavours to account for the anomalies by the geological history of the country, as written chiefly in the Terraces of the Jordan Valley. The volume contains a complete catalogue of all the vertebrate Fauna, including the fresh-water fishes, the most singular portion of the Palestine Fauna, the terrestrial and fluviatile mollusca, the phanerogamic plants, and the ferns. The Hebrew names, so far as known (*i.e.*, every Hebrew name found in the Bible), and the vernacular Arabic names are given; the authority and original description of every species is given in reference, and the geographical area of each species, which in every case has been carefully worked out. Short accounts are given of the most interesting and conspicuous species, and the fishes of the Sea of Galilee are very fully described. It has been resolved to allow this volume to be subscribed for separately at the price of three guineas.

The Jerusalem book, by Colonel Sir Charles Warren, K.C.M.G., and Captain Conder, R.E., consists of one volume, uniform with the preceding, of 542 pages. The following is the Table of Contents:—

Chronological Synopsis of the History of Jerusalem; Architectural History of Jerusalem; History of Jerusalem Exploration; Statement of the principal controversies; Explorations in Jerusalem; Excavation round the Noble Sanctuary; Tanks inside the Sanctuary; Excavations on Ophel; Excavations in the City; Explorations since 1869; Work of M. Clermont-Ganneau in the City; Environs of Jerusalem; the Siloam Inscription; Ancient Inscriptions in Jerusalem; the Holy Sepulchre. To these is added an Appendix on Philistia; Askelon; Jidy; Warren's Journey east of the Jordan; the Jordan Valley; Saida; the Temple of Cœle Syria; the Mounds of Jericho; the Lebanon; and the pottery and glass found in the excavations. A number of illustrations will be found in the text, but the volume is actually illustrated by the great portfolio, with fifty sheets of drawings which accompanies it. In them will be found, published in their entirety for the first time, the whole of Sir Charles Warren's work, with contributions from Captain Conder. The volume and portfolio may also be had separately at the price of five guineas.

A very important resolution has been passed by the Executive, and approved by the General Committee. It is to the effect that, in order to meet the wishes

of many subscribers, we shall replace our reduced Maps of Western Palestine and our Old and New Testament Maps by others giving both Eastern and Western Palestine, the present part including what has already been done, and showing what is known approximately of the rest. Sir Charles Wilson will superintend this work. When it is ready, those subscribers who wish will be allowed to exchange the maps already in their possession for the new ones, on payment of the small difference in their cost and the carriage. Mr. Armstrong is now engaged upon drawing these maps. It is not likely that they will be completed before the end of the year.

We have received from Mr. Laurence Oliphant some notes on a journey recently undertaken by him into Eastern Palestine. They were accompanied by geographical notes made by Mr. Schumacher. These include the heights of eighteen ruins, cottages, and hill-tops; the collection of some thirty names; the correct course of the Yarmuk and the Rukad, with sections across the former river. At Tsîl, on the way to Damascus, it is stated that there are a great many dolmens, of which one was sketched, and is figured at page 171. It will be observed that it is a very fine and perfect example. It is remarkable that there should be a great group in the north of this country, perhaps corresponding to the group found and planned by Captain Conder in 1882.

Among the "Special Surveys" made during the survey of Western Palestine is one, fortunately very complete, of the ruins of Cæsarea, which will be found in Vol. II of the Memoirs. The following notes, extracted from a recent letter published in the *St. James's Gazette* (June 27, 1884), curiously illustrate the importance and rapidly increasing value of these plans, made before they were swept away by populations which have no other than a superstitious interest in old monuments. It must be remembered that every improvement or alteration in the condition of the country means the destruction of more ancient monuments. The possessors of Captain Conder's Memoirs will before long hold in their hands a representation which can never be made again of other curious and interesting ruins, besides those of Cæsarea. We may remark, in illustration, that a precisely similar process of destruction is going on at Ammân, where the ruins have also been specially surveyed by the same officer.

"The principal inducement to tourists in Palestine to take the coast route which leads from Jaffa to Carmel and Acre, lies in the fact that it affords them an opportunity of visiting the ruins of Cæsarea, which are mainly of two periods —first, the Roman town, with walls, theatre, hippodrome, mole, temple, and aqueducts; second, the Crusading town, with moats, castle, cathedral, northern church, and harbour: the whole forming a collection of remains which for importance, extent, and interest are unsurpassed by anything in the Holy Land west of the Jordan. Those who have already visited these ruins may consider themselves fortunate; for they are at present undergoing a process of transformation and disintegration which bids fair to destroy, or at all events to conceal, the last vestiges of what was once the most important centre of Roman civilization on this coast. The circumstances under which this change is taking place are sufficiently curious—from an historical and political point of view, as being the direct result of the late Russo-Turkish War—to be brought to the notice of

your readers; while they form a singular commentary on the ignorance which prevailed in England with regard to the true character of the events which led to that war.

"When those disturbances occurred in Bosnia and Herzegovina which led first to Servian and then to Russian intervention, the popular notion was that the population of those provinces was Christian, and that the cause of the insurrection was the persecution of the inhabitants by the Turkish Government. There would be some difficulty in reconciling this theory with what is now going on at Cæsarea. These ruins have been presented as their future home to Moslem emigrants from Bosnia and Herzegovina, who are all Slavs, some of whom do not know a word of Turkish, and who have fled for refuge to the sheltering wing of the Sultan from the Christian rule of Austria in the provinces that were ceded to her by the Treaty of Berlin. They are the *avant-garde* of a large influx which is soon to follow; and I was astonished on visiting their new colony a few days ago at the display of energy and wealth which it presented. A broad street has been laid out, which passes directly over the remains of the Roman temple built by Herod in honour of Cæsar and of Rome—(the finely dressed white stone being turned to good account by the colonists)—and over the Crusader's cathedral, the foundations and walls of which also furnish splendid building material. The masonry is brown limestone beautifully squared; the stones are from 9 inches to 2 feet long, and from 6 to 8 inches high, and have the dressing common to mediæval churches. This street extends in a northerly direction from the south gate of the Crusading fortress, and will probably be ultimately prolonged to the north tower. Already within the last five months over twenty handsome stone houses have been built upon it, two of them three stories in height, all surrounded by court-yards, in which the harems of the colonists are jealously secluded; indeed, I did not see one female immigrant. The Slavs are, in fact, far more rigid in their Moslem observances than the Arabs by whom they are surrounded. Many new houses were in process of erection, the carpenters and masons all being supplied by Haifa, as Cæsarea is in the caimakamlik of that name. As I had visited the towns of Mostar and Cognitza in Herzegovina, from the neighbourhood of which the colonists had come, I easily won their sympathies by talking to them of their country, and listening to the grievances which induced them to dispose of their property and transfer themselves to Palestine. They were aristocrats in their own country, and they had been unable any longer to submit to the humiliation of being treated on an equality with the peasantry of their own race, who, being Christians, were—from their point of view—unduly favoured by the Government; and who, no doubt, availed themselves of the changed circumstances to be revenged upon their former masters. One of the colonists, who had opened a little store, placed at my disposal an unfinished house which he was building. He announced his intention of opening an hotel, which will be an immense convenience as a half-way house for travellers from Jaffa to Haifa, the more especially as it is possible now to drive the whole distance in a carriage. Indeed, now that there is a good hotel at Haifa, there is no reason why travellers, instead of riding and tenting it from Jerusalem to Nazareth, should not drive the whole distance between those places by way of Jaffa, Cæsarea, and Haifa.

"These Slav colonists have a fine tract of land, part of the Plain of Sharon, assigned to them for cultivation, adjoining the section granted to the Circassian

colonists, whose village is within a few miles of Cæsarea. As these Circassians are emigrants from Bulgaria, it seems a singular destiny that they should again have Slav neighbours in Palestine; while scarce ten miles distant, in curious contrast with these two races, is the Jewish colony of Zimmarin, which, in spite of all the difficulties with which it has had to contend, seems likely to turn out a success. Meantime it is satisfactory to find that a magnificent tract of fertile country, which has hitherto been abandoned to desolation and nomads, is now likely to be brought into cultivation by an increase of the agricultural population, no matter of what race; and that the port upon which Herod the Great expended so much labour and money, although fallen into disrepair, will again be put to use. The northern side of this harbour is composed of a mole, consisting of some sixty or seventy prostrate columns; the southern of a rocky promontory, on which was probably built the "Drusus," or principal tower of the great wall of Herod. It is now a confused mass of Crusading masonry. For here was built the donjon-keep; and among its ruins the Slavs, with an eye to the amenities of life, are now erecting a café and place of entertainment, which, perched over the sea between Roman columns and Crusaders' buttresses, will catch every breeze and form an agreeable resort. Most of the new houses are built on the foundations of old ones, thus forming a sixth architectural period. For Herod built on the site of the ancient town known as Strato's Tower; the splendid city which he called Cæsarea was followed by structures raised under the Byzantine rule; upon the ruins of this the Mohammedans built; next came the time of the Crusaders; and the final destruction of the place by Bibars took place in A.D. 1265. In the course of their excavations for building-stone the Slavs have found a good many coins of various periods, some statuettes, and other antiquities; but, so far as I could discover, nothing has been brought to light of any great value, and the owners set an exorbitant price on what they have found. As, however, the new town is only in its infancy, and there is no saying what discoveries may yet be made.

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The income of the Society, from March 13th to June 26th inclusive, was £738 2*s.* 8*d.* On June 30th the balance in the Banks was £311 8*s.* 7*d.*

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

Subscribers who do not receive the *Quarterly Statement* regularly, are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

MEETING OF GENERAL COMMITTEE.

JUNE 19TH, 1884.

THE Chair was taken by Mr. JAMES GLAISHER.

The Secretary read the minutes of the last General Meeting, which were confirmed.

The Secretary then read the Annual Report of the Executive Committee, as follows :—

REPORT OF THE EXECUTIVE COMMITTEE.

MY LORDS AND GENTLEMEN,

Your Committee, elected at the last General Meeting of June 19th, 1883, have, on resigning office, to render an account of their administration during the past year.

I. The Committee have held twenty-one meetings during the year.

II. It has been found impossible to carry on the survey of Eastern Palestine for want of the Sultan's Firman. The portion of the survey already accomplished has been engraved on the reduced scale, and issued to subscribers. Captain Conder has completed and handed in his Memoirs of the 500 miles surveyed. These are remarkably full and detailed, and are accompanied by hundreds of plans and drawings. The Committee have still under consideration the question, whether these should be published at once, or whether they should wait for the continuation of the work.

III. The issue of the Society's great work, "The Survey of Western Palestine," is at length completed. The last two volumes, that on "Jerusalem," by Sir Charles Warren and Captain Conder, and that on the "Flora and Fauna," by Canon Tristram, are now in course of distribution to subscribers. The Jerusalem volume is accompanied by a portfolio of plates, drawings, and sketches. These two volumes will not be limited in their issue. The Committee think that the Society may be justly gratified by the completion of this magnificent work, which, with the accurate and beautiful maps furnished by the survey of Captains Conder and Kitchener, is by far the most important and valuable contribution ever made to the elucidation of the Bible from the geographical, archæological, and topographical point of view. The maps have been executed in the best style, and therefore at a very considerable cost. The Committee think it due to Mr. Stanford, their engraver, to record their sense of the beauty and excellence of the work put into the engraving of their reduced maps.

IV. There have been many expressions of opinion that the maps, which now show only the western side of the Jordan, should be extended so as to

give the eastern side also, even though that part is yet imperfectly known. It has therefore been resolved that all the existing information on this part of the country shall be laid on sheets the same size as those of the reduced map for the engraver. Mr. Armstrong, who has been in the Society's service since the year 1871, is now engaged in doing this. As soon as he has completed the work it will be sent to the engraver.

In order to make these maps more generally useful, the Old and New Testament names, boundaries, &c., will be laid down on them in different colour. Sir Charles Wilson has kindly undertaken to superintend this part of the work; when it is completed, those subscribers who wish will be allowed to exchange the Bible maps they have already obtained at the office for the new ones, on payment of the small difference in the cost of the two maps.

V. In October of last year the Committee published, through Messrs. Bentley & Son, Captain Conder's new book on his Eastern travels, entitled "Heth and Moab." The result, though not yet so satisfactory as in the case of the preceding work by the same author, has left a balance on the right side in our hands.

VI. The exploration work of the year has been of a very satisfactory and valuable kind. The Committee announced at their last General Meeting that they hoped to organise, and send out in the autumn, an expedition which should be mainly devoted to geological research. This expedition has been despatched, and has accomplished the work entrusted to its leader, Professor Edward Hull, F.R.S., Director of the Geological Survey of Ireland. He was accompanied by Captain Kitchener and by Mr. George Armstrong. Professor Hull also took with him his son, Dr. Gordon Hull, and the party was also strengthened by the addition of two volunteers, Mr. Hart, who was assisted by a grant from the Royal Irish Academy for botanical purposes, and Mr. Reginald Lawrence. They left England on 10th of October last year, and returned on the 12th of February, after a journey which occupied four months.

VII. As regards the results of the expedition, they are twofold. First, *Geological.* An analysis of Professor Hull's discoveries has been placed in the hands of the Committee, and will be published in the next number of the *Quarterly Statement.* He has traced the ancient margin of the Gulfs of Suez and Akabah to the height of 200 feet above their present level, so that the whole country has been submerged to that extent, and has been gradually rising. As regards the Dead Sea, he has discovered that it formerly stood at an elevation of 1,400 feet above its present level; that is to say, 150 feet above the level of the Mediterranean. The history of this gradually lowering of the waters will form a special feature in Professor Hull's forthcoming report. He has also found evidences of a chain of ancient lakes in the Sinaitic district, and of another chain in the centre of the Wâdy Arabah, not far from the watershed. The great line of feature of the Wâdy Arabah and the Jordan Valley has been traced to a distance of more than a hundred miles. The materials for working out a complete theory of the origin of this remarkable depression are now

available. They are found to differ in many details from the one furnished by Lartet. The terraces of the Jordan have been examined, the most important one being 600 feet above the present surface of the Dead Sea. The relation of the terraces to the surrounding hills and valleys shows that these features had already been formed before the waters had reached their former level. Sections have been carried east and west across the Arabah and the Jordan Valley. Two traverses of Palestine have also been made from the Mediterranean to the Jordan.

Dr. Gordon Hull has taken more than a hundred photographs, chiefly of places never before figured.

Next, *the Geographical results.* Major Kitchener has made a survey, which is lying on the table, of the whole of the Wâdy Arabah, from Akabah to the Dead Sea; he found traces of an old city about a mile north-east of the town of Akabah; another ruined city on the east of the wâdy, six miles north of Feidan, with many indications of former buildings, terraces, and irrigation works. He visited Petra and heard many rumours and reports of ruins said to lie on the east of the hills in the country of Edom. He has given the Committee a report on his work, which will also be published in the *Quarterly Statement.*

As regards exploration, therefore, this year has been fruitful of valuable work. For future work the Committee must be mainly guided by circumstances. Until the Sultan grants the Firman it is useless to think of continuing the survey of Eastern Palestine. It is therefore proposed to continue the work from time to time as opportunities offer, by means of such special expeditions as those of Professor Hull, or by the informal work of private parties and travellers, the results of which will be published from time to time as they arrive.

VIII. The following is the Balance Sheet of the year 1883:—

1883.		£	s.	d.
Jan. 1.	Balance	363	14	3
Dec. 31.	Subscriptions	2,014	1	1
„	Maps and Memoirs	881	7	0
„	Books	100	11	0
„	Photographs	22	3	7
		£3,381	16	11

1883.		£	s.	d.
Dec. 31.	Exploration	732	2	3
„	Maps and Memoirs	1,521	5	2
	Management:			
„	Salaries and wages	374	7	3
„	Rent	121	0	0
„	Stationery, Advertising, Lithography, Insurance, and Office	13	18	2
„	Printing	263	2	2
„	Postage	113	16	3
„	Balance	172	5	8
		£3,381	16	11

It will thus be seen that the Committee spent during the year the sum of £3,209 11*s.* 3*d.*, of which £509 5*s.* 5*d.* was expended in management, or including postage £623 1*s.* 8*d.*, which is not quite 20 per cent. of the whole. The expenditure of the year 1884, up to the present date, has been £3,121, of which £1,830, or 59 per cent., has been spent in exploration, £833, or 27 per cent., on Maps and Memoirs, £130, or 4 per cent., on printers, and £328, or 11 per cent., in management.

The maps and Memoirs up to the present have cost the Society about £6,000. They have realised rather more than that amount. There is about £2,000 still to be paid on this account; and when all the subscriptions to the "Survey of Western Palestine" have been paid, and the copies still on hand subscribed for, there will remain a considerable surplus, but it is not possible at the present moment to estimate the exact sum.

IX. Papers have appeared in the *Quarterly Statement* since last June on the Geology of Palestine, by Professor Huddlestone; on various topographical and archæological points, by Captain Conder, the Rev. W. F. Birch, the Rev. Pickering Clarke, the Rev. H. G. Tomkins, and others; on the Shapira Manuscripts, by the Rev. Dr. Ginsburg, M. Clermont-Ganneau, and Captain Conder; on the Relation of Land and Sea in the Isthmus of Suez, by Professor Hull; on Mr. Holland's Last Journey, by Sir Charles Wilson; on the Khurbets of Carmel, by Mr. Laurence Oliphant; and on Inscriptions in Palestine, by M. Clermont-Ganneau. To all these gentlemen the Committee render their best thanks.

X. The Committee have, lastly, to express their best thanks to the Local Secretaries, who are active in spreading abroad a knowledge of their work; and to all their subscribers and donors.

The Rev. Dr. William Wright: Mr. Chairman, My Lords and Gentlemen, I have much pleasure in proposing that the Report just submitted be adopted, printed, and circulated. The different items referred to show that the past year has been one of considerable activity. You have done all you were able to do, though not all you desired to do. In your publications, and in your explorations, you have largely added to our knowledge of the Holy Land during the year; and though in some of your efforts you may not have attained to certainty, you have certainly made advances towards certainty, and you have stimulated curiosity, and mental activity, and a great desire to know more, and to explore further, and deeper, on lines which you have indicated. You are still, I regret to see, hampered by the groundless fears of the Sultan. If any man can remove obstructions out of the way, Lord Dufferin can. I know personally that Lord Dufferin succeeded last year in securing results in Syria which seemed impossible. The Sultan could do no more popular act than permit those who wish him no ill to explore thoroughly and make a good map of those sacred and historic lands of which he is now the guardian. And it is certainly not in his interest that his acts should only drive earnest scholars to long for the time when the country, now closed and barred by ignorant, blind, weak fanaticism, shall be opened to all under a more enlightened ruler. I trust

that Lord Dufferin will continue to urge on the Sultan, in his own interest, as well as in the interest of geographical science, to remove all restrictions out of the way of a thorough survey of Syria and Palestine. Sir, I have seen your work in progress, and I know something of the results attained. I have had the pleasure of seeing your men hard at work on the survey, in the face of difficulties, and I have also seen them hard at work in filling in details during what was supposed to be their holidays at Bludan and elsewhere. I have just recently been associated with some of your best men, in the preparation of maps for the British and Foreign Bible Society ; and it is only by going through the work done that one can form any idea of the vast amount of material for the future student which your explorers have placed at the disposal of Bible students. You will be pleased to hear that the corrected proofs of the set of the Bible Society's maps containing your own work, so far as is possible on our small scale, are now in the hands of Mr. Stanford, and as the Society's home circulation last year amounted to over one million and a half copies of the Scriptures, you may form an idea of the wide circulation of the knowledge of the Holy Land made accessible by your Society. But the maps will also appear in the Italian, French, German, Telugu, Chinese, and other foreign versions of the Society. And as the Society's versions now reach a total of somewhat over 250, the information gathered by your agents will be more extensively circulated than could ever have been dreamed of by the founders of the Palestine Exploration Fund. Let me urge you not to slacken energy in this work, which is for all the world, and for all time. I long for the day when your work shall go on east of the Jordan. Rich treasures await you in the Hauran, and among what have been called the "giant cities of Bashan." You have done good work in giving us a true map for the west of the Jordan, but a less explored and a more fertile field awaits you east of the Jordan, not to speak of the south country, Edom and Moab. I have much pleasure in commending your work, and in moving the adoption of the resolution which I have submitted.

Mr. Cyril Graham : I beg, Sir, to second the resolution of Dr. William Wright. I have long desired that this important survey may be extended to cover the Land of Bashan, and even further east. In this map, which I drew up from the notes of my own journeys in the year 1858, I was able to lay down a great many places and names not previously known. At the same time the journey of a single traveller can never do such map work for a country as a party of surveyors accomplish. The country is not too far east for Biblical limits ; for instance, in Umm el Jamul we recognise Beth-gamul. And there are certain periods in the year when it may be safely and easily traversed. I have only to express my hope that the hoped-for Firman may speedily be granted, and the party again in the field. Meantime, the exploration work of the year shows what may be done in seizing opportunities and getting the right men to work.

The resolution was carried unanimously.

Rev. W. F. Birch : I beg to propose the re-election, for the ensuing twelve months, of the Chairman and the Executive Committee. I am quite sure, as a member of the General Committee, an Honorary Local Secretary, and one who takes the greatest interest in the welfare and success of the Society, that we are in very good hands. The Report of the year proves that the work is being followed up with as much vigour and activity as is possible.

The Rev. Dr. Löwy, in seconding the resolution, called attention to a recent decree by the Porte that no visitors to Palestine should remain there for more than thirty days without special permission.

The resolution was carried unanimously.

The Rev. Dr. Ginsburg : Mr. Chairman, I have a list of gentlemen in my hands whom I beg to propose for election in the list of General Committee. They have all shown that active interest in all belonging to the Holy Land which is the one qualification required to make a man eligible for our General Committee. These names are—

Lord Rollo.
Sir Richard Temple.
Sir William Muir.
General Charles Gordon, R.E.
Professor Hudleston.
Professor Hull.
Mr. George Burns.
Mr. John Robinson, of Westwood Hall, Leeds.
Mr. W. C. Jones, of Daresbury, Warrington.
Mr. A. H. Heywood.
Rev. Professor Milligan.
Mr. Henry Lee, M.P.
Mr. H. S. Perry, of Monksbourne, Cork.
Mr. F. W. Grafton, M.P.
Rev. F. W. Creeny.
Rev. H. G. Tomkins.
Mr. W. H. Houldsworth, M.P.
Mr. J. H. Shorthouse.
Rev. Prof. H. A. Hort, D.D.
Rev. F. E. Wigram.

Mr. Vaux seconded the resolution, which was carried unanimously.

The Rev. W. F. Birch : Mr. Chairman and Gentlemen, We have now reached an epoch in the history of this Society. The two newly issued volumes and the plans lying on the table conclude the great work of the "Survey of Western Palestine," begun in 1872. The portion of Captain Conder's map before us, containing 550 square miles, is the firstfruits of the eastern survey ; now unhappily stopped by the withholding of a Firman.

Even under this discouragement, previous speakers are radiant with hope that the survey will yet be extended southwards into the desert of Et Tîh and eastwards into the far Hauran. But what of the centre of interest in the Holy Land? My thoughts turn always to Jerusalem. Is there not work there? Colonel Warren's beautiful plans show us much that was once unknown; but at many important points his work was cut short, so that what is known only makes me the more desirous to know more. I ask, is it not time, after an interval of fifteen years, once more to resume excavations at Jerusalem? Shall we be content with presenting to the Bible-loving people of England a correct map of Palestine, and then own that we cannot give them a true plan of Biblical Jerusalem? One says Zion was here, another there; is this always so to be? The Bible arguments seem to me to demonstrate that the City of David was on the eastern hill south of the Temple, but almost all authorities are in favour of some other position, and nothing but excavation will ever settle this debated point. I understand that Colonel Warren thinks that there would be no difficulty in excavating on Ophel, away from the walls of the present city. Why should the Turk object to Englishmen paying for the privilege of digging in the gardens down towards Siloam? The money spent would be so much gain to the poor fellahin. I am convinced that between the Virgin's Fount and Siloam there are remains of the deepest interest connected with the City of David. I would hope, then, that the day is not far distant when the long-lost catacombs of David and other kings of Zion will once more be trodden by those who take pleasure in her stones. As to the question of expense, I believe the necessary funds would soon be forthcoming, since I am satisfied that many supporters of the Palestine Exploration Fund would rejoice to hear that excavation work at Jerusalem was once more to be taken in hand. I have much pleasure in proposing the following resolution:—"That the Executive Committee be requested to consider the question of resuming excavation outside Jerusalem on the earliest opportunity."

Sir CHARLES WARREN: I have great pleasure in seconding Mr. Birch's resolution—the more, perhaps, because we do not always take the same view on the sacred sites of the City. There are many places about and around, perhaps within the city, where excavations might be conducted at small cost, and without danger of interference.

The resolution was carried.

The CHAIRMAN: My Lords and Gentlemen, We have now, as Mr. Birch remarked, reached an epoch in our work. On the table before us lie the volumes, the maps, and the drawings, summed up generally under the title of the "Survey of Western Palestine," which represent the great bulk of our labours since the work of the Society began. We have surveyed all that part of the Holy Land, from Dan to Beersheba, which lies on the west of the Jordan—there are our maps. We have planned, drawn, measured, and photographed nearly every ruin in the country; we have

recovered the old Jewish tombs, and are now enabled to classify and to date them; we have written down the names of the modern villages and ruins; we have found the remains of the synagogues and enabled the world to restore the synagogue of Capernaum—there are the Memoirs; and with them we have published the hundreds of drawings executed for us by Captain Conder and Captain Kitchener; we have, thanks to my friend Canon Tristram, who is never weary of doing something more for the Holy Land, given to the world this truly magnificent book, with its beautiful illustrations, on the Flora and Fauna of the country. We cannot too much congratulate ourselves, that is, our Society, nor can we sufficiently thank Canon Tristram, for the production of a book so admirable and so worthy of the subject. There is so much special interest in the Holy Land attached to its Natural History that it was absolutely necessary to supplement the survey by such a work as this, which could only be thoroughly taken in hand by such a specialist as Canon Tristram. It contains facts, otherwise unattainable, bearing on the questions of the distribution and modification of species. No other country affords so many opportunities for illustrating these questions. We have also in this volume, the last of a splendid series, produced a complete record of all that has been done in Jerusalem since the Ordnance Survey of the city was executed for the world by our friend Sir Charles Wilson in 1865. This book contains the complete and exact account of all Warren's work in the years 1867 to 1870. It also includes a paper on the Architecture of Jerusalem, and an account of the various work done in the city by Captain Conder, M. Clermont-Ganneau, Herr Schick, Herr Guthe, and others. We have to thank Captain Conder, whose name we are all glad to see on the title-page, for his hearty co-operation with Sir Charles Warren. I am sure we are rejoiced to see Captain Conder, who has done so much for the Society, increasing our obligations to him. Lastly, in this great portfolio, with its fifty plates, are figured the discoveries made by Warren. If it be asked why the plates have not been published before, we should have to give the history of Sir Charles Warren's busy and active life since he left Jerusalem. But at this point in our own work, and with these volumes in our hands, I think we should take the opportunity to pass a vote of our warmest thanks to Sir Charles Warren. I am happy to announce that, to the many honours he has won, the Royal Society has recently added one more. I am sure that he is as proud of being a Fellow of that noble Society as he is of wearing the Collar and Star of a Knight Commander of the most distinguished Order of St. Michael and St. George.

Lord Eustace Cecil: I am happy, Mr. Chairman, in the opportunity of seconding this vote of thanks. I can only add to your remarks that, though we shall never forget the work done at Jerusalem, we must also remember the work done by Sir Charles during the Zulu War, as Governor of Griqualand, in the region of mathematical science, and in the hunting down of Professor Palmer's murderers. I think, Sir, the Society singularly fortunate in its officers, but especially so in the case of Sir Charles Warren.

Sir CHARLES WARREN, in replying to the vote of thanks accorded to him, said: It has long been a dream with me that these plans should be published, and I am heartily rejoiced to find that sufficient funds have at last been found to enable this to be accomplished, for I have felt certain that as soon as they are in the hands of the public fresh interest will be excited in the topography of Jerusalem, and there will be a renewed desire to excavate there. Of course these plans can only be taken as an earnest of what is to be discovered in the future; we were obliged to break off in the middle of our work, but we had already accomplished one great section of our enterprise. We had obtained a fairly correct contoured plan of the ancient Jerusalem, and an accurate delineation of the ancient Temple wall. We had commenced quite in the dark as to the relative value of the conflicting theories, and have emerged with so much fresh knowledge that all the old theories have to be modified or abandoned. When the Sultan's Firman expired in 1870, and we were compelled to desist from excavating, I had already elaborated a project for a trigonometrical survey of Palestine, and pointed out that the original design for a mere reconnaissance was not applicable for the work in hand; I pointed out also that while the objects underground would keep a few years longer, the march of civilisation was rapidly erasing all records of the past above ground. The ancient ruins were being burnt into lime, the old names were giving way to modern appellations, and the records of the past were disappearing: it was necessary at once to proceed with the trigonometrical survey of Palestine and to leave Jerusalem. This work has been completed most successfully through the industry and perseverance of Captain Conder and his comrades, and the time appears to have arrived when we may again consider the question of excavating about Jerusalem. It would be expensive work digging near the inhabited portion, but happily there is the Hill of Ophel, on which, as has been stated, excavation may be made at a comparatively small expense. My friend the Rev. W. F. Birch, who now sits beside me, insists that here is Mount Zion, and is about to attack with a violent hand the position I have assigned to that ancient stronghold. Why not spend a small sum in excavating on Ophel and ascertaining whether he be right or not? There is much to be said on all sides of the question. I am sure that great interest would be attached to this work. There is a large section of the public interested in Palestine generally, but I think the feeling is more intensely centred in the Holy City.

After a vote of thanks to the Chairman, the Committee adjourned.

ABSTRACT OF OBSERVATIONS OBTAINED BY THE SCIENTIFIC EXPEDITION SENT OUT TO ARABIA PETRÆA AND WESTERN PALESTINE BY THE COMMITTEE OF THE PALESTINE EXPLORATION FUND IN 1883.

By Professor Hull, LL.D., F.R.S., F.G.S. (Geologist-in-chief).

The Committee of the Palestine Exploration Fund, in the summer of 1883, resolved upon sending out an expedition to examine the geological structure of the Jordan Valley and Western Palestine, together with that of the Valley of the Arabah, with a view to determine the mode of their formation and physical history. It was also intended to connect the triangulation of the district of Mount Sinai (Jebel Musa) with that of Western Palestine along the district of the Wâdy el Arabah; and to determine the elevation above the sea of the watershed (or "saddle") of that valley, with reference to the practicability of the projected "Jordan Valley Canal Scheme." Several collateral objects were also kept in view—such as the investigation of the sites of Ezion Geber, Kadesh-barnea, and other localities connected with the Israelitish migration and history; but in this place only the scientific aspects of the Expedition will be referred to.

Besides the author, who was put in command of the Expedition, the other members were Major Kitchener, R.E., and Mr. Armstrong (formerly Sergeant-Major, R.E.), who joined us in Egypt; Mr. H. C. Hart, Trin. Coll., Dublin, who had been a member of Captain Nares' Polar Expedition, and now joined as botanist and naturalist; Mr. Reginald Lawrence, Associate of the Royal College of Science, Dublin who acted as meteorologist; and Dr. E. Gordon Hull, who was appointed assistant and medical officer.[1]

The arrangements for providing camels, tents, food and supplies were undertaken gratuitously by the well-known firm of Messrs. T. Cook & Son, to whom it is only due to say that they did everything in their power for the comfort and safety of the members of the Expedition. A rendezvous of the whole party, including conductor, dragoman, and Arabs of the Towara tribe, took place at Cairo on the 7th November, 1883, and on Monday, the 11th of the same month, the party started for their desert journey from Moses' Wells (Ayun Musa), near Suez.

The route taken lay along the plain bordering the Gulf of Suez to Wâdy Gharandel, and thence by the Wâdies Hamr, Suwig, and Nasb, Bark, Lebwey, Berrah, and Es Sheikh, to the base of Mount Sinai (Jebel Musa). Thence, after a few days, in a north-easterly direction by the Wâdies Zelegah, Biyar, El Ain, Et Tihyah, and Ras en Nakb to Akabah.

Here the Arabs of the Towara tribe who had conveyed the party thus far were dismissed; and arrangements were entered into with the Sheikhs of

[1] Mr. Hart has considerably added to the recognised flora of the district traversed, and Mr. Lawrence has furnished a daily register of the temperature and aneroid readings. Dr. E. G. Hull brought home a large number of photographs.

the Alowîns for a convoy along the Wâdy el Arabah to Petra, and the shore of the Salt Sea (Bahr Lut). This having been effected, the party left Akabah on the 3rd December; and after visiting Petra, Mount Hor (Jebel Haroun), and several of the branching valleys on either side, reached Es Safieh on the 17th of the same month, and camped by the village of the Ghawarnehs, where they remained ten days, including Christmas Day. Horses and mules having at length arrived from Jerusalem, accompanied by a small escort of Turkish cavalry, the party crossed to the western shore of the Salt Sea, and after examining Khasham (or Jebel) Usdum (the salt mountain), ascended by the Wâdy Zuweirah towards the tableland of Southern Palestine, camping successively at Wâdy el Abd, Tel el Melh, Bir es Saba (Beersheba), Tel Abu Hareireh, and reaching Gaza on the last day of the year. Here the party would have been obliged to remain in quarantine for fifteen days but for the friendly offices of Lord Dufferin, the British Ambassador at Constantinople, who procured their release on the morning of the fifth day. They then proceeded onwards by Jaffa to Jerusalem, from whence excursions were made to the Jordan Valley, and other places around, and by which two complete traverses of Southern and Central Palestine were effected. The whole distance traversed was about 700 miles, of which 500 miles were on camel-back, the remainder on horse-back. A final expedition through Northern Palestine was then arranged for, but was brought to an end by a heavy fall of snow, which covered the whole of the tableland of Palestine to a depth of 2 feet and upwards. The party left Jaffa on their return to England on Friday, 25th of January, Major Kitchener having previously returned to Egypt.

Scientific results.—Before proceeding to give an outline of the scientific results of the Expedition, the author desires to express his obligations to the writings of previous explorers in the same field, especially to those of Russeger, Fraas, Tristram, and of MM. Lartet and Vignes, of the expedition carried out by the Duc de Luynes.

1. A complete triangulation of the district lying between the mountains of Sinai and the Wâdy el Arabah, including that of the Wâdy el Arabah itself, bounded on the west by the tableland of the Tîh, and on the east by the mountains of Edom and Moab. An outline survey along the line of route was also made, and has been laid down in MS. on a map prepared by Mr. Armstrong on the same scale as the reduced Map of Palestine, viz., $\frac{3}{8}$ inch to one statute mile, or $\frac{1}{168960}$.

2. Some important rectifications of the borders of the Salt Sea, and of the Gulf of Akabah, were also made.

3. A geological reconnaissance along the line of route through the districts of Sinai, Akabah, and the Wâdy el Arabah, including the following particulars:—

(*a*) Collections of fossils from the Wâdy Nasb Limestone, in addition to those already made by Mr. Bauerman and Colonel Sir C. W. Wilson. These fossils (which are being examined by Professor Gollas) go to show that this limestone is of Carboniferous age; the Wâdy Nasb limestone was found to continue over a considerable region north of Mount

Sinai, and was again recognised amongst the mountains of Moab on the east side of the Salt Sea in the Wâdy el Hessi. As this limestone rests upon a red sandstone foundation, this latter may also be assumed to be of the same geological age, and therefore cannot be the representative of the "Nubian Sandstone" of Russeger, which (as Professor Zittel has show) is of Cretaceous age. I propose to call this formation, therefore, "the Desert Sandstone." It forms with the limestone a strip along the borders of the ancient rocks of paleozoic or archæan age, and is about 400 feet in average thickness; the base is generally a conglomerate.

(*b*) Above the Wâdy Nasb limestone is another sandstone formation, of which a large portion of the Debet er Ramleh is formed. It is laid open in the Wâdies Zelegah, Biyar, &c., and along the mountains of Edom and Moab. Out of this rock have been hewn the ancient temples, tombs, and dwellings of Petra and the Wâdy Musa. It stretches along the southern escarpment of the Tîh plateau, and forms the base of the limestone cliffs along the margin of the Wâdy el Arabah as far north as Nagb el Salni. This sandstone formation is soft, red, or beautifully variegated, and is in all probability of Cretaceous age, and therefore the true representative of the "Nubian Sandstone" of Russeger. It will thus be seen that there are two red sandstone formations. one below, the other above the Carboniferous limestone of the Wâdy Nasb.

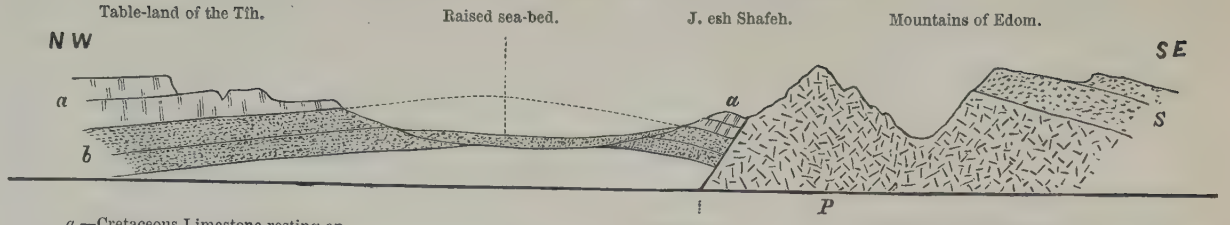
(*c*) The geological structure of the Wâdy el Arabah was examined throughout a distance of 120 miles from south to north. That it has been hollowed out along the line of a main fault, ranging from the eastern shore of the Salt Sea to that of the Gulf of Akabah, was clearly determined; and the position of the fault itself was made out and laid down on the map[1] in six or seven places, one being about ten miles north of Akabah, another near the watershed, in which places the limestone of the Tîh (cretaceo-nummulitic) is faulted against the old porphyritic and metamorphic rocks. I here give two sketch sections to illustrate the structure at these points (see p. 163).

There are numerous parallel and branching faults along the Arabah Valley, but there is one leading fracture running along the base of the Edomite Mountains, to which the others are of secondary importance; this may be called "The Great Jordan Valley fault." The relations of the rocks in the Ghor and Jordan Valley have already been shown by Lartet, Tristram, Wilson, and others, to indicate the presence of a large fault corresponding with the line of this remarkable depression, and the author considers the fracture he has observed in the Arabah Valley to be continuous with that of the Jordan.

(*d*) The ancient rocks which form the floor either of the Desert, or Nubian, sandstone formations, consist of granite, gneiss, porphyries, and more rarely metamorphic schistose rocks—together with volcanic rocks, consisting of agglomerates, tuffs, and beds of felspathic trap. The author

[1] The map used was an enlarged plan from Smith and Groves' Ancient Atlas (J. Murray).

SKETCH SECTION ACROSS THE WÂDY EL ARABAH.

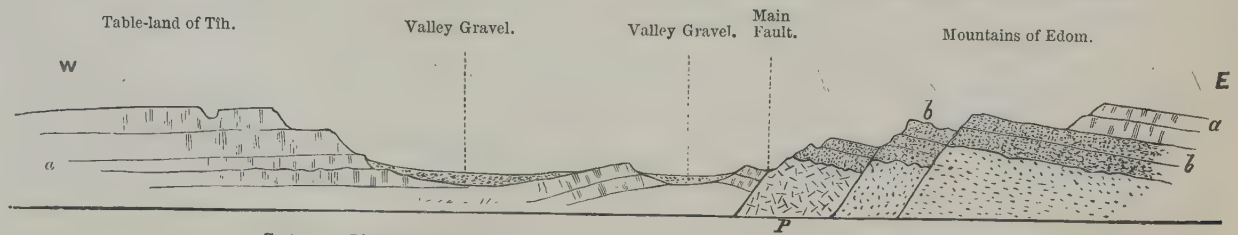


a.—Cretaceous Limestone resting on
b.—Nubian Sandstone, forming an arch under the valley.

Main fault.

Desert and Nubian Sandstone, resting on Granite and Porphyry.

SKETCH SECTION ACROSS THE WÂDY EL ARABAH, SHOWING ITS STRUCTURE NEAR THE WATERSHED, OR SADDLE.



a.—Cretaceous Limestone with Chert.

a.—Cretaceous Limestone.
b.—Nubian Sandstone.
P.—Porphyry and Granite Dykes.

is disposed to concur with Dr. Lartet in considering the gneissose and granitoid rocks to be of archæn (or Laurentian) age, as they are probably representative of those of Assouan in Upper Egypt, which Principal Dawson has recently identified with those of this age. The granites and porphyries are traversed by innumerable dykes of porphyry and diorite, both throughout the Sinaic mountains and those of Edom and Moab; and the author considers it probable that the volcanic rocks which are largely represented along the base of Mount Hor, and of Jebel Somrah near Es Safieh, are contemporaneous with these dykes. As far as the author was able to observe, none of these dykes penetrate the Desert or Nubian sandstones, and if so, they may be considered of pre-Carboniferous age. The upper surface of the ancient rocks was extremely uneven previous to the deposition of the Desert sandstone, having been worn and denuded into ridges and hollows; over this irregular floor the sandstone strata were deposited.

4. The occurrence of terraces of marl, gravel, and silt, through which the ravines of existing streams have been cut at an elevation (according to aneroid determination) of about 100 feet above the level of the Mediterranean, was taken to show that the level of the Salt Sea (Bahr Lut) at one time stood about 1,400 feet higher than at present. These beds of marl were first observed at the camp at Ain Abu Beweireh; they contain blanched shells of the genera *Melanopsis* and *Melania*. The beds of marl were observed to be enclosed by higher ground of more ancient strata in every direction except towards the north, where they gently slope downwards towards the borders of the Ghor, and become incorporated with strata of the 600-feet terrace.

The author concurs with Dr. Lartet in thinking that the waters of the Jordan Valley did not flow down into the Gulf of Akabah, after the land had emerged from the sea; the disconnection of the inner and outer waters was very ancient, dating back to Miocene times.

The occurrence of beds of ancient lakes—consisting of coarse gravel, sand, and marl, amongst the mountains of Sinai, and in the Wâdy el Arabah, where now only waterless valleys occur, taken in connection with other phenomena, have impressed the author with the conviction that the former climatic conditions of Arabia Petræa were very different from those of the present day. Such terraces have been observed by Dr. Post in the Wâdy Feirân, and Colonel Sir C. W. Wilson in the Wâdy Solaf, and by the author in the Wâdies Gharandel, Goweisah, Hamr, Solaf, and Es Sheikh or Watiyeh. It would appear that, at a period coming down probably to the prehistoric, a chain of lakes existed amongst the tortuous valleys and hollows of the Sinaic peninsula. The gypseous deposits of Wâdy Amarah and of 'Ain Hawareh are old lake beds, and Mr. Bauerman has observed remains of fresh-water shells (*Lymnæa truncatula*) and a species of *Pisidium* in "lake or river alluvium" of the Wâdies Feiran and Es Sheikh. ("Quart. Journ. Geol. Soc.," Vol. XXV, p. 32.)

7. The author considers it probable that these ancient Sinaitic lakes belong to an epoch when the waters of the Mediterranean and the Red Sea rose to a level considerably higher than at present, and when, consequently,

there was less fall for the inland waters in an outer direction. The evidence of a submergence, to a depth of at least 200 feet, is abundantly clear in the occurrence of raised beaches or sea beds with shells, corals, and crinoids of species still living in the adjoining waters. The raised beaches of the Mediterranean and Red Sea coasts have been observed by the officers of the Ordnance Survey, and by Fraas, Lartet, Schweinfurth, Post, and others. They were observed by the author at the southern extremity of the Wâdy el Arabah, and shells and corals were found round the camp of the 3rd December at an elevation of about 130 feet above the Gulf of Akabah.

These ancient sea beds are represented in the Egyptian area by the old coast line of 220 feet, discovered by Fraas along the flanks of the Mokattam Hills above Cairo, and recently described by Schweinfurth. (Über die geol. schichtungliederung d. Mokattam bei Cairo; Zeit. d. Deuts. Geol. Gesel, 1883.) The period in which the sea rose to this level may be stated in general terms as the Pliocene, but it continued downwards till more recent times; and the author believes that at the time of the Exodus the Gulf of Suez reached as far as the Great Bitter Lake (*Quarterly Statement*, April, 1884), a view in which he is supported by Principal Dawson, F.R.S. It is scarcely necessary to observe that through the longer portion of this period of submergence Africa was disconnected from Asia.

8. The Miocene period is not represented by any strata throughout the district traversed by the Expedition. The author considers that in this part of the world the Miocene period was one of elevation, disturbance, and denudation of strata; not of accumulation. To this epoch he refers the emergence of the whole of the Palestine, and of the greater part of the Sinaitic, area from the sea, in which the cretaceo-nummulitic limestone formations were deposited. To this epoch also he considers the faulting and flexuring of the strata is chiefly referable; and notably the formation of the great Jordanic line of fault, with its branches and accompanying flexures in the strata which are very remarkable along the western sides of the Ghor. These phenomena were accompanied and followed by extensive denudation and the production of many of the principal physical features of the region referred to.

9. The evidences of a Pluvial period throughout this region are to be found (*a*) in the remains of ancient lake beds, (*b*) in the existence of terraces in the river valleys, (*c*) in the great size and depth of many valleys and gorges, now waterless except after severe thunderstorms, and (*d*) in the vastly greater size of the Salt Sea (or Dead Sea), which must have had a length of nearly 200 English miles from north to south at the time when its surface was at a higher level than that of the Mediterranean at the present day. The author considers that this Pluvial period extended from the Pliocene through the post-Pliocene (or Glacial) down to recent times. As it is known, from the observations of Sir J. D. Hooker, Canon Tristram, and others, that perennial snow and glaciers existed in the Lebanon during the Glacial epoch, the author infers that the adjoining districts to the south of the Lebanon must have had a climate approaching that of the British Isles at the present day;

and that, in a region of which many parts are over 2,000 feet in elevation, there must have been abundant rainfall. Even when the snows and glaciers of the Lebanon had disappeared, the effects of the colder climate which was passing away must have remained for some time, and the vegetation must have been more luxuriant down to within the epoch of human habitation. The author's views generally coincide with those of Theobald Fisher, as extended by him to a much wider area. ("Studien über das Klima der Mediterranean Lander," Peterman's Mittheilungen, 1879.)

10. The author considers that there are reasons for concluding that the outburst of volcanic phenomena in North-Eastern Palestine in the region of the Jaulan and Hauran, &c., has an indirect connection with the formation of the great Jordan Lake of the Pluvial period. The presence of water in considerable volume in now recognised as necessary to volcanic activity, and the author submits that this interdependence was brought about when the waters of the Lake stretched as far north as the little Lake of Huleh. These waters, under a pressure of several hundred feet, would find their way into the interior of the earth's crust along the lines of the great Jordan Valley fault, and of its branches, and thus supply the necessary "steam-power" for volcanic action. The period when the volcanoes of the Jaulan and Hauran were in action appears to have ranged from the Pliocene through the post-Pliocene to the beginning of the recent; when, concurrent with the falling away and partial drying up of the waters of the great Lake, the volcanic fires became extinct and the great sheets of basaltic lava ceased to flow.

If these views are correct, it would seem that during the Glacial epoch, Palestine and Southern Syria presented an aspect very different from the present. The Lebanon throughout the year was snow-clad over its higher elevations, while glaciers descended into some of its valleys. The region of the Hauran, lying at its southern base, was the site of several extensive volcanoes, while the district around, and the Jordan Valley itself, was invaded by floods of lava. A great inland sea, occupying the Jordan Valley, together with the existing comparatively restricted sheets of water, stretched from Lake Huleh on the north, to a southern margin near the base of Samrat Fiddân in the Wâdy el Arabah of the present day, while numerous arms and bays stretched into the glens and valleys of Palestine and Moab on either hand. Under such climatic conditions, we may feel assured, a luxuriant vegetation decked with verdure the hills and vales to an extent far beyond that of the present, and amongst the trees, as Sir J. D. Hooker has shown, the cedar may have spread far and wide.

11. The author has not thought it necessary to go into the question of the origin of the salinity of the Salt Sea, as this question is now fully understood. He is obliged to differ with Dr. Lartet in his view of the origin of the salt mountain, Jebel Usdum,[1] which he (the author) regards

[1] Lartet regards the strata of this mountain as belonging to the Nummulitic period.

as a portion of the bed of the Salt Sea, when it stood about 600 feet above its present level. This level exactly corresponds to that of the terraces, both along the south and east of the Ghor, formed of lacustrine materials. The upper surface of Jebel Usdum was examined by Messrs. Hart and Laurence, of our party, but previous explorers have considered the sides inaccessible.

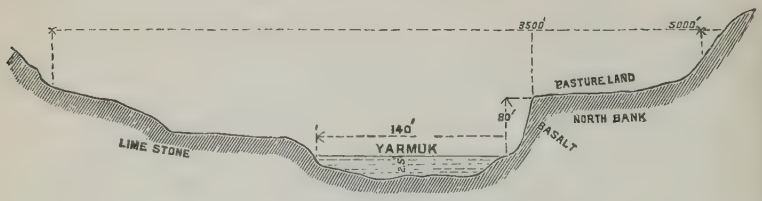
12. The author concurs with previous writers in considering that the Cretaceous and Tertiary periods succeeded each other over this region (at least as far as the marine deposits are concerned) without any important physical disturbances; in consequence of which the limestone formations of these periods are in physical conformity and are generally incapable of separation. It seems probable, however, that while the Nummulitic limestones predominate in the Egyptian and Nubian areas, those of the Cretaceous period were more fully developed over the area of Arabia Petræa and Palestine.

The scientific results of which the above is a summary are intended to be published *in extenso* by the Palestine Exploration Fund, together with a geological map of the whole district, and one on a larger scale of Wâdy el Arabah. The popular narrative of the Expedition will appear before the close of the year.

NOTES ON THE JAULÂN.

The map which accompanies these notes is the result of a flying survey made by my travelling companion, Mr. Schumacher, in the course of a short exploratory ride which I took with him up the valley of the Yarmuk, beyond the Baths of Amatha, as well as of a survey of the adjoining part of Jaulân, which he made with a view of investigating its practicability for a line of railway. As I did not accompany him upon this latter expedition, I will merely give the results of my observations of the valley of the Yarmuk. The hot sulphur springs of Amatha, with the remains which surround them, and which are mentioned by Eusebius as being second only in the estimation of the Romans to the Baths of Baice, have been visited and described by two or three travellers, and although a more accurate investigation of these interesting ruins would doubtless prove richly remunerative from an antiquarian point of view, my opportunities were too limited to enable me to add to the stock of existing information. So, probably, would be an examination of the impenetrable jungle of M'Khaibeh, with its extensive grove of date-trees, and its hot sulphur spring, which is situated on the other side of the river, and about two miles higher up it; but it would require a stay of some days to make the necessary clearings, and cut paths through the vast thicket which is now the haunt of wild boar and other wild animals, which make their lairs amid the ruins that it no doubt conceals. Beyond this point, the

river, so far as I am aware, has never been explored, and it was with the view of tracing its course as far as practicable that we started one morning last April from our camp at Amatha. Some idea of the volume of water in the Yarmuk at this season of the year may be formed from



SECTION ACROSS NAKR YARMUK NEAR HAMA.

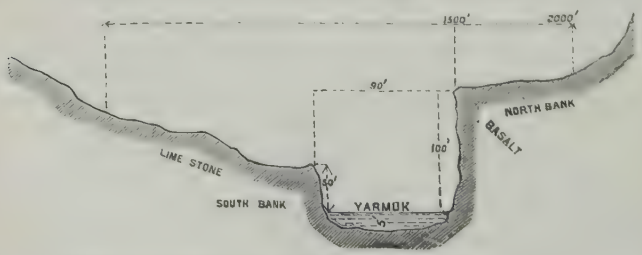
the fact that the river at this point was 140 feet broad, with a very swift current, that the water reached high up our saddle flaps, and that only four days previously the stream here had been unfordable. As, owing to the precipitous character of the banks, the river can only be followed by constantly crossing it, its present flooded condition augured badly for our success. Opposite M'Khaibeh the basalt cliffs rise abruptly from the foaming torrent to a height of about 300 feet, and I observed on their face the square openings into caves, which had evidently been the retreats of robbers at a former period, such as those who, as we know, in the time of Herod the Great, inhabited eyries of this description in the Wâdy Hamâm, near the Plain of Gennesereth. Huge eagles were sailing above them now. A little beyond M'Khaibeh the path diverged to the right, rising up the steep grassy spurs which descend from the forest-covered ridge, on the top of one of the summits of which are the ruins of Gadara, and so leading to the wooded plateau of Keferat. We declined to be seduced from our purpose by following this, and, although the natives assured us that there was no path up the valley, we decided to keep along a cattle track which soon led us to a precipice, across the face of which we had great difficulty in making our way. It had probably never before been used by anything but goats. We ultimately managed to scramble down it to the rocky margin of the stream, only to find it necessary to leave it again, and cross a high shoulder which formed another overhanging cliff. The view from this point was very grand—indeed I do not know any finer scenery in Palestine than that afforded by the gorges through which the Yarmuk cuts its way between the elevated plateaus of Jaulân and Ajlun to the Jordan Valley. Here the limestone and basalt formations meet, and in places one is superimposed upon the other, forming a black and white cliff of most singular aspect. Above the precipices on its right bank, which immediately overhang the river, are steep grassy slopes running up to the base of another series of cliffs, above which is the level plateau ; on the left bank, which we were following, the cliffs are more broken and less lofty, the lateral valleys deeper and more irregular, and the grassy slopes in their descent soon meet the oak woods which show against

the sky line on the summit of the ridge. The upper edges of the plateau are from one to two miles apart in an air line, while the bed of the river is about 1,400 feet below them. After scrambling with great difficulty as near the bottom of the valley as we could, for about two hours, we reached a point where the side of the mountain having slipped away, exposed a sheer precipice of about 1,000 feet, and formed a mound in front of us, round which the river curled, as it swept under an opposite cliff. Here progress seemed barred on both sides, but seeing some Bedouin tents on the opposite bank, pitched on a level patch near the river of which they had taken advantage, we determined to attempt a ford with a view of interviewing them ; for we had dispensed with a guide, my experience in exploratory travel having led me to the conclusion that guides generally take you in the direction which they want to go, and you don't. When the Arabs saw us approaching the river with the intention of fording it, they waved us back, and, in fact, the crossing, owing to the huge boulders, and the depth and swiftness of the current. was not without risk and a wetting ; and they told us that we had crossed where there was no ford, and though the attempt had succeeded, it would be folly to make other attempts of a similar nature higher up. These people were not Bedouins, but sedentary Arabs from the village of Somma, who camp at this season in the valley to look after their grain and pasture their flocks ; the name of their present camp was Zubennis. They received us with great hospitality, and, indeed, though the valley is reported unsafe, we found nothing to justify its reputation. We had not long left the Arab camp before we found that their account of the impossibility of a further ascent was correct. Perhaps at the dryest season, by taking advantage of the river bed, the attempt would be practicable ; as it was, we reached a point a little below the junction of the Wâdy Rukad with the Yarmuk.

As the Arabs had told me that on the summit of a high-crested hill opposite, called Kalat el Hösn, I should find ruins, I determined to recross the river at our former ford, and climb up to them. This, after a hard scramble, we succeeded in doing. Here I found a Khurbet, covering a few acres of ground ; from its position on the summit of an almost pyramidal hill, it was evidently an ancient fortress. In places the drafted stones were still standing on the old foundations; there were some cisterns, and in the neighbourhood some rock-hewn tombs ; the sides of the loculi, however, were completely broken away in the only ones the entrances to which admitted of examination. Unfortunately the name is too common to be of any assistance for purposes of identification. The elevation of Kalat el Hösn above the sea by my aneroid was 870 feet, and above the river about 1,000. I now made for a still higher summit, called by the natives Tel el Hetaliyeh : this has an elevation of 1,020 feet, and forms in fact the crest of the mountain, at the point where the slide already mentioned occurred. From the edge we looked sheer down a giddy height of at least a thousand feet. From this point we had a commanding view of the valley of the Yarmuk, and up the Wâdy Rukad, also of the Jaulân plateau, with the village of Dabusieh on its opposite edge. The interesting features of the Yarmuk

which have yet to be visited are its cataracts; one of these will, I think, be found just above Tel el Ashera, the other possibly not far below it, but the upper one must be the most important. The fall of this river in the course of seven or eight miles must be at least 2,000 feet, and with its volume of water in the spring must afford a magnificent spectacle. My hope on the occasion was to have visited this waterfall, but I was unfortunately unable to complete my trip as I intended. The Allan, the Rukad, and other tributaries of the Yarmuk each have their own waterfall before joining the river. Mr. Schumacher, who has seen the fall of the Rukad, tells me that it falls at Jamly 300 feet in an unbroken sheet of water over a precipice.

We now struck, by a path we found through the woods, in a south-easterly direction. The oak trees grew sparsely, like those in a park, over the rich plateau, now carpeted with wild flowers. The precipitous ravines which intersected this upland, and which were sometimes covered with a dense undergrowth, frequently compelled us to depart from the direction which our compasses suggested as the proper one, and after riding for about three miles we were getting into despair at ever finding a practicable opening to the westward, when we fortunately came upon some peasants, who put us in the way. At this point I found two handsome sarcophagi, some tombs, hewn stones, and all the evidences of an ancient site, and on inquiring if it had a name was told *Haleebna*, which being interpreted means "Our milk." Thus our ride, if it had not been so productive of additions to the geography of the Yarmuk as I could have desired, furnished us with two hitherto unknown sites of ancient towns. Our way now led us down a lovely and romantic gorge, called the Wâdy el Humra. The elevation of the plateau at the point where we commenced the descent was 1,250 feet above the sea, and 1,800 above the Baths of Amatha. A little spring which we came upon near the head of the valley we were now descending soon swelled into a purling brook; the steep and rocky hill-sides which rose abruptly from it were thickly clothed with a rich undergrowth, which on our right was broken off near the bottom into a precipitous white limestone cliff. Here we emerged upon



SECTION ACROSS THE YARMUK AT BIRKET EL ARAIS.

the grassy spurs which slope down to the Yarmuk, and came suddenly upon a pool of water, about a hundred yards long by fifty broad, called the

Birket el Arais, or Pool of the Bride. We had now reached the limits of former exploration, and in half an-hour found ourselves once more skirting the jungle of M'Khaibeh, and within sight of our tents, after a ride of much topographical interest, and a beauty of scenery unsurpassed by anything in Palestine.

LAURENCE OLIPHANT.

The map which accompanies this report traces the course of the Yarmuk from the Jordan Valley to its junction with the Nakr Rukád and part of the course of the latter, the Wâdy es Sammuk, and the Nakr 'Allân. It embraces also the ruins and villages of Hama, Dabusiyeh, Jamly, Kefr Elma, Fik, Hetin, Tsîl, Adwân, &c. The heights are given, with a great amount of information on the character of the ground, &c. At Tsîl were found a large collection of dolmens, one of which is sketched and is here figured.

DOLMEN NEAR TSÎL.

Dimensions.

	ft.	in.
Length of table stone	5	0
Breadth	2	6
Height from ground	2	0

PRÆ-EXILIC JERUSALEM.

ABSENCE from England has prevented me from returning an earlier answer to the objections raised by Captain Conder and Canon Birch to my views in regard to the topography of præ-exilic Jerusalem. I will now try to atone for the delay, and do my best to meet the thrusts of my doughty antagonists.

I will take Captain Conder first, more especially as Canon Birch agrees with me about what is, after all, the main point, that is to say, the site of Zion. My statement that Dr. Guthe had discovered a valley separating Zion from Moriah, and had come across Solomonic walls to the south of the lower Pool of Siloam, was derived from his report upon the explora-

tions he had undertaken on the so-called Ophel-hill in conjunction with Mr. Schick. This report was published last year, with elaborate plans, in the Journal of the German Palestine Society. I had not myself seen either the walls or the indications of the valley, and had no idea that Dr. Guthe's assertions in regard to them were not to be trusted.

Captain Conder has misunderstood my meaning in thinking that I propose to confine the inhabited Jerusalem of the royal period to Zion, the City of David. On the contrary, I hold that the Jebusite town stood on the Temple-hill, and that this town continued to be inhabited, first of all by Jebusites during the reign of David, and subsequently by the retainers of the Court, the servants and slaves of the Temple, and, as the book of Nehemiah informs us (iii. 31, 32), by "the merchants" and goldsmiths as well. Captain Conder seems to have had in his mind the Temple area of later times, and to have forgotten that the Temple-hill was once thickly populated like the City of David itself. Modern criticism has shown that the Temple of Solomon was a sort of chapel royal attached to the palace, and the whole building would appear from the measurements given in 1 Kings to have been of comparatively small size. But even so it was intended to accommodate a large number of people, though it by no means occupied the whole of what I mean by the Temple-hill. When it is further remembered that the walls of the lower city extended sufficiently far south to enclose the Pools of Siloam, it is evident that the size of Jerusalem, for an ancient city, was by no means despicable. One has only to take a model of modern Jerusalem to see that it was well worthy of being the capital of a small kingdom like that of Judah. How would ancient Hebron have compared with it in respect of size? What has struck me more than anything else when examining the sites of the famous cities of Greece and Asia Minor is what is in our eyes the extremely small area which they cover. Ancient Jerusalem, according to my conception of it, was large by the side of them. But, as Mr. Besant has noticed, we have a conspicuous example of the same fact in our own country. Old Sarum "contained a cathedral with a monastery, a castle and a town, all within a space large enough for a London square garden." Those who have visited the Palatine Hill at Rome must have observed with astonishment the diminutive size of primitive Rome. Not only were the inhabitants of these old cities closely packed together, but many of them lived habitually outside the walls, and only came into the city in times of danger. Moreover, where there is a large slave population, and houses more than one story high, the amount of population per acre is very considerably greater than Captain Conder would allow. Hence, to sum up, according to my theory, "the capital of Syria, in David's time," did not occupy "only 8 acres," but a great deal more, and I see no difficulty in believing—I do not say that it is necessary to believe—that it was populated at the rate of "2½ yards by 2 yards per soul."

Captain Conder next assumes that I value Josephus "at a very low estimate." I know not why he should bring this accusation against me, as I am quite ready to believe whatever Josephus may say, provided it is not

contradicted by external or internal evidence. Certainly I have never written of him, as Captain Conder has done ("Handbook to the Bible," p. 368), that "inconsistency, inaccuracy, and exaggeration are thus plainly discoverable in the measurements given by Josephus."[1] But I cannot see that the passage he quotes from Josephus ("Wars," iv, 2) supports his views, unless we suppose that the Jewish historian stated what he knew to be contrary to fact. Here is Captain Conder's translation of the passage: "David and Solomon and the succeeding kings were very zealous about this work (*i.e.*, the wall). Now that wall began on the north, at the tower called Hippicus." Does Captain Conder think that Josephus can in these last words be referring to a wall built either by David or by any of the other early Jewish kings? If he is so referring, he would be making a false statement, which would invalidate all else that he says about the matter. Every one knew that the tower of Hippicus did not belong to præ-exilic Jerusalem. It is plain that Josephus is describing a wall such as it existed in his own time, some portions of which had been built by David, other portions by Solomon, other portions again by later kings, while the portion which began at the tower of Hippicus, and was, therefore, in connection with this work of fortification, was constructed in the Herodian period.

I now come to Canon Birch. We, at all events, agree in having a common basis of operations from which to start, though he seems to me unnecessarily to complicate and endanger his views by supposing that the City of David stretched across a deep valley—a phenomenon without precedent, so far as I know, in the annals of *primitive* towns. His opposition to my conclusions rests upon the assumption that "before the Siloam Tunnel was made, the waters of Gihon (Virgin's Fount) *flowed softly* to Siloam along an aqueduct on the eastern side of Ophel."[2] If this

[1] Captain Conder, who maintains that Akra was the hill westward of the Temple-hill, must consider Josephus to have been similarly inaccurate in his description of the levelling it underwent in the time of Simon the Hasmonean. Josephus (13 "Antiq.," v, 6; 5 "Wars," iv, 1) asserts that its summit was removed in order that it might no longer dominate over the Temple-hill, but that on the contrary the Temple might stand "higher" than the citadel, a third hill over against it, and separated from it by the "broad" Tyropœon valley, which was "naturally" lower, being thus raised above it. Now the summit of Captain Conder's Akra is 2,488 feet, or 56 feet higher than the highest part of the Haram; while the third hill, Captain Conder's Zion, can only by a stretch of language be said to be divided from his Akra by the Tyropœon valley. This latter hill is marked as 2,535 feet high, or 103 feet higher than the Haram, in his plan. Nor do I see how Captain Conder can explain 13 "Antiq.," ix, where the close contiguity of the citadel to the Temple is mentioned along with the fact that the soldiers of the citadel were able to run out and injure the Jews as they were going up to worship. How could this have happened except on the western side of the Temple-hill if the citadel was where Captain Conder would place it?

[2] Captain Conder asks, "Is it necessary to conclude that 'the waters of Shiloah that go softly' (Isa. viii, 6) were running in an aqueduct? May they not have run in an open stream down the valley?" The answer is that, as M. Deren-

aqueduct is not discovered, he will "admit the overwhelming weight" of one of my arguments. After the failure of Sir Charles Warren to find any traces of this hypothetical aqueduct in the galleries with which he undermined the eastern side of the so-called Ophel, I think I might be excused from replying to any of the arguments Canon Birch has urged against my counter-theory. I have, at least, facts on my side; he only a conjecture, which excavations have hitherto failed to support. I will, however, deal with them in due order.

(1) I doubt whether fulling was ever carried on at a tank the water of which was used for drinking. Was it likely that cloths would be washed at the spring on which all the fresh water supply of Jerusalem depended? Moreover, if this spring were the Gihon of Scripture it would not be En-rogel. On the other hand, the word *En* shows that a mere reservoir is not meant.

I see no reason for considering "the old pool" to have been on a higher level than the Pool of Siloam, unless we imagine that it was fed from the Virgin's Fount. But for this we have no authority.

(2) *Public* threshing-floors were naturally outside the walls; Araunah's was a *private* floor.

I thought that it was agreed by all Hebrew scholars and critics that the expression "*the* house," unless specially qualified, signified "the house" *par excellence*—that is, "the house of God." Can Canon Birch find any other meaning for the phrase?

I must protest against the statement that my interpretation of 2 Samuel v, 8, is a "popular error." The Hebrew tenses admit of no other; we have *waw consecutivum* in each clause. The narrative sets before us a sequence of events. First of all, David went to Jerusalem (verse 6); then (*waw consec.*) "it was said to David," &c.; then (*waw consec.*) David took the stronghold of Zion which is "the City of David" (verse 7); then (*waw consec.*) David said "on that day," &c. (verse 8). What happened, therefore, was this. David appeared before Jerusalem, where he was taunted by the Jebusites; then he first captured the outpost of Zion; and after this, but on the same day, he promised rewards to "whosoever getteth up to the gutter, and smiteth the Jebusites." The flower of the Jebusite garrison was in the outpost of Zion; Jebus itself was considered sufficiently strong to be protected even by the blind and the lame.

Where is the proof that "Araunah betrayed Zion?"

I will leave Professor Robertson Smith to defend himself, which he is well able to do, and pass on to the last arguments Canon Birch brings against me. He begins by asking me to account for "the old arch anterior to" Robinson's. I confess I do not know what he means by this; does he mean the base of the pier of the bridge 42 feet below the surface, and on a level with the stone pavement of the Herodian age? In any case an arch

bourg was the first to point out, the meaning of the word *Shiloah* shows that they ran through a tunnel. Moreover, a valley stream in Palestine does not usually "flow softly."

in Palestine has only one meaning that I can see; its age is not earlier than the Græco-Roman time.

As I have not expressed myself with sufficient clearness in regard to Warren's tunnel, I will now quote the succinct description of it given by Mr. King, in his lately published "Recent Discoveries on the Temple-Hill at Jerusalem":—"Near the upper end of the [Siloam] tunnel, and only 50 feet from the Virgin's Fountain, the engineers came upon a lateral passage cut in the rock, and extending westwards into Ophel hill. The passage was nearly choked up with hard mud, but being cleared out was found to be 17 feet long, leading into a small chamber, with the floor scooped out in form of a basin. This basin is evidently a receptacle for water, and being 3 feet lower than the bottom of the tunnel, the supply was obtained from the Virgin's Fountain. Over this small chamber is a large shaft cut through the solid rock, 40 feet in height. At the top was found an iron ring fixed in the rock overhanging the shaft, to which ring a rope would be attached for hauling water up in a bucket. From the shaft a great corridor leads to a staircase, and that again leads to a chamber with a vaulted roof. The entrance to this passage was from the top of Ophel at a point a few feet below the ridge."

The careful workmanship of these passages, the niches for lamps—a Græco-Roman invention,—the iron ring, and the fact that the lower conduit led into the winding Siloam Tunnel, all go to show that this lower conduit was later in age than the Siloam one. In fact, the basin with which it terminates can only be explained on the hypothesis that it was intended to receive the surplus water of the Siloam Tunnel. If such a Tunnel had not already existed, the flow of water from the Virgin's Fountain would soon have choked both basin and conduit. How the vertical shaft, up which the water was hauled in a bucket, can be identical with the *tsinnor*, or "waterfall," of 2 Samuel v, 8, is more than I can understand.

A. H. Sayce.

FRESH NEWS FROM KADESH.

By H. Clay Trumbull.

(*From the "Sunday School Times," April 26th*).

It will be remembered by those who are at all familiar with the doubts and discussions concerning Kadesh-barnea, that the first modern discovery of the site of that ancient camping-ground of the Israelites was made, in 1842, by the Rev. John Rowlands, an English clergyman; and that for nearly forty years after his visit to it, every effort at its re-finding proved abortive. Such experienced Oriental travellers as Abeken, Professor Palmer, Dr. Thomson, President Bartlett, Dr. Schaff, and others, from Germany, England, and America, sought in vain to reach that jealously

guarded and strangely illusive site ;[1] until, indeed, its very existence came to be involved in serious question.

It is also known to many, that while passing over the desert from Mount Sinai to Hebron, in the spring of 1881, I was enabled to re-find that site, and to confirm at every point the accuracy of Mr. Rowlands's observations and descriptions. In a recently published volume giving the result of my own observations in, and subsequent studies concerning, Kadesh-barnea, I took pleasure in showing how much credit was due to Mr. Rowlands for his energy and efficiency as an explorer ; and I dedicated the volume to him, and to the memory of two other Englishmen who had been engaged in similar researches. And now comes an interesting and an unexpected sequel to this story of Kadesh and the huntings for it.

Even since my re-finding of 'Ayn Qadees—the site of Kadesh-barnea —several attempts to visit it, or even to pass in its vicinity, have proved unsuccessful. Professor Post, of the American Protestant College at Beyrout, and his travelling companion, the Rev. Dr. Field of New York, were unable to secure an escort for the direct route Hebronward, from Castle Nakhl in the mid-desert, which would have carried them near the site in question. An English party of travellers was similiarly disappointed. Mr. Edward L. Wilson, of Philadelphia, a man of exceptional energy and determination as an explorer, was also unsuccessful in his diligent search for 'Ayn Qadees ; although he had the assistance of my faithful dragoman Mohammed Ahmad Hedayah. During the past winter, an expedition from England, under the auspices of the Palestine Exploration Fund, was sent into the desert for the purpose of certain specified investigations, including a visit to the site of Kadesh-barnea. This expedition was led by Professor Hull, and accompanied by Captain Kitchener, an officer of the Royal Engineers, who has had large experience in Oriental surveys. Its results have proved of importance in many other directions, but not in that of Kadesh-barnea. In a personal letter recently received by me, Mr. Walter Besant, the Secretary of the Palestine Exploration Fund, says : "Kitchener has been across the [Desert of the] Tih, and found some curious old roads, &c. And he has also surveyed the Wâdy 'Arabah. He was anxious to visit Kadesh, but could not get there. Is it not strange how that place eludes search ?"

But what of Mr. Rowlands, all this time ? He has now reached the ripe age of seventy-five years, and is still in the active duties of the ministry, in a quiet English parish. This fresh and world-wide interest which had been awakened in the results of his early travels, quickens his old-time zeal in Oriental research, and he coolly packs his carpet-bag for another journey, and taking several members of his family with him he pushes on to Egypt, crosses over into the Arabian desert, clambers Mount Sinai, and then presses northward toward Hebron, stopping to take a look at 'Ayn Qadees, and show it to his children, as he goes by ; incidentally

[1] See the late Mr. Holland's Map and Notes, *Quarterly Statement*, Palestine Exploration Fund, January 1884, p. 9.

making fresh investigations into the site of the old home of Hagar, near the fountain which is on the Wall Road into Egypt, between Kadesh and Bered (see Gen. xvi, 7–14); and all this as deliberately and as easily as if he were going from one corner to another of his home garden, having the assistance of Arab servants who stood ready to do his bidding at every turn.

"I received your letter," he writes, "as you will be surprised to hear, at Cairo, in Egypt, in the course of a great tour I have undertaken for my son and daughter, who are with me, together with a niece as companion to my daughter; first through Italy, then through Greece, then through Egypt and Palestine, and back from Beyrout to Smyrna, Constantinople, and the Danube. I had not intended coming here [to Palestine] through the wilderness, meaning only to take my children to Mount Sinai and back to Suez, and from thence proceed by the Canal, Port Saïd, and Jaffa, to Jerusalem. But having received your letter, I felt very much tempted to go direct from Mount Sinai through the great wilderness, by Kadesh and Hebron, to Jerusalem, that I might be able to write to you from Jerusalem, and say that I had paid another visit to Kadesh; and finding some difficulty in our way by Port Saïd and Jaffa, on account of a state of quarantine at Jaffa, and the prospect of its continuance, I determined to take the course through the heart of the wilderness from Sinai by Kadesh to Jerusalem. But I found it too much for me at my time of life. I was quite knocked up for several days before we reached Jerusalem, and never was a hotel so welcome to me as the Mediterranean Hotel here on our arrival at Jerusalem, last Saturday; and the *rest* I have enjoyed here since. I have been regaining strength ever since, but I do not mean to move from this place for the north of Palestine until my health and strength are quite restored. I should like very much to give you a little sketch of my journey through the wilderness both to and from Sinai. But I feel quite unequal to it. The least thing, even to write a few lines or do anything, is for the present an effort to me. But I must say a few words about Kadesh, or 'Ayn Kades, and Moilahhi, or, as I take it to be, Beerlahairoi. We came first to Moilahhi, as the Arabs of the neighbourhood call it, and not Muweileh as many others call it, and they add (*i.e.*, the Arabs of the neighbourhood) in a very emphatic manner, the name Hagar, insisting on its being called Moilahhi Hagar, meaning not "a stone," but "a woman," Hagar, the mother of Ishmael. The Teyahahs, our conductors from Nakhl to Hebron, or to near Hebron, who were not so well acquainted with the localities nor so faithful and true as the Terrabin who conducted me before in these parts, tried to impose upon me by showing me a paltry little cave near, or close to, the ground, as the house of Hagar. Of course I knew better. The house of Hagar, or "Beit Hagar," as the Arabs of the place call it, consists of one principal square chamber, not a cave, but cut square out of a rock in the side of a precipice at some height from the ground, with a staircase leading up into it, and two smaller interior chambers for dormitories. The little crystal stream at Kadesh we found still flowing from the rock. But the appearance of the place is very much altered and spoiled by the Arabs,

who have digged a well close by, and the camels who gather round the well have trampled all the green slope. It is a great pleasure to me to tell you that I have seen the place again."

Mr. Rowlands' further claim as to the Arabic name of the supposed fountain of Hagar, is of importance in an effort at its identification. If he can now give the Arabic equivalents of that name, he will make the matter clear. The well of Hagar was called in the Hebrew, "Beer-lahai-roi," which means "Well of the Living One who Seeth," or "Well of the Living one of Vision." If the Arabic term is "Mâ-lehayy-rái," the meaning is "Water of the Living One Seeing;" which corresponds very closely with the Hebrew. Possibly Mr. Rowlands did not make sure of the Arabic equivalents of the term.

THE SEPULCHRE OF SHEBNA.

Isaiah xxii.

Every one interested in Biblical topography must have read, more or less attentively, the controversy which has lately appeared in the *Quarterly Statement* concerning præ-exilic Jerusalem. I have been watching it for some time, more especially because I wished to obtain information upon a certain point to which my attention was recently drawn by a careful investigation of the original of the above chapter. The sepulchre of Shebna may have been long known to explorers; but if it has been pointed out anywhere, I regret that I have overlooked it. Since, then, the above-mentioned controversy was not continued in the last number of the *Quarterly Statement*, I trust I shall be permitted to bring this one point again before your readers; and shall deem it a great favour if any explorer would be kind enough to say whether traces can be discovered of the work to which I conceive the prophet here to refer, and which, if I estimate it correctly, was a local event of stirring times in the days of Hezekiah.

The chapter (Isa. xxii) upon which my question is founded is, I must premise, acknowledged to contain some very difficult passages. In order, therefore, to make the object of this paper clear, I must also show my views of the meaning of some of these passages. According to the textual heading of the chapter the "Burden" belongs to "the valley of vision." This I take to mean either the valley in which the prophet lived, or that low-lying street in the heart of Jerusalem in which most public sights were seen. The prophecy is divided into two parts: verses 1–14 a prophecy concerning the whole people, and verses 15–25 a prophecy concerning two individuals, Shebna and Eliakim. I take first the latter part, because, when we understand this rightly, it will help us to understand the whole. In verse 16 the prophet says: "What hast thou here

and whom hast thou here, that thou art hewing thee here a sepulchre ; thou hewer of thy sepulchre on high, graver of thy habitation in a rock?" This is spoken to Shebna, and it seems to me to be the most important link between the two parts. But the latter portion of this verse, which I have translated in agreement with the awkward renderings commonly accepted, may, with greater grammatical accuracy, be translated thus : "My hewer has his sepulchre on high ; my digger has his dwelling on a rock." This rendering, whilst it takes nothing from the clearness of the chief event here referred to, adds a hint at another circumstance in the history. The terms *digging* and *hewing*, though used in allusion to a great work, an extensive quarrying, which, as we shall see below, was being done at that time in the sight of all men, must evidently be understood here in a figurative sense. The precise signification of the figure may not be obvious to us at first sight, but was undoubtedly well understood by Shebna, to whom the words were addressed. Yet when we compare this with what is further said concerning Eliakim, then the conclusion forces itself upon us that the above figures signify gain ; so that "my hewer" is he that seeks my gain ; and in this sense, by the way, the sentence reads like a motto which might be an inscription over a sepulchre or on a tombstone.

For this is what we may call a new paragraph in the history of Jerusalem, combined with contemporary prophecy, and not found elsewhere. From this history it appears that Shebna and Eliakim had one after another held a high office in the kingdom, and that each in his turn had made himself unworthy of it by abuse. Their respective abuses, however, did not proceed from the same but from two different causes. Thus Shebna is denounced for seeking gain for himself who had no friends either to share it with during his lifetime, or to leave it to after his death (verse 16), but seemed to accumulate his treasures only to waste them upon a sepulchre which he apparently was making in a rock. Eliakim's fall, on the other hand, is predicted on account of his too many friends. He had large connections of all kinds, small vessels, and vessels of cups and bottles, as they are ironically called (verse 24) ; and he, after being raised to Shebna's place, or perhaps higher than he, is represented as allowing himself to be used by them as a handle for promoting the interests of them all. The figure by which the prophet describes Eliakim's nepotism, is peculiarly striking and beautiful. He is like a well-fixed nail upon which all these vessels are hung. For through his means his numerous friends try to elevate themselves to high honour, and endeavour to obtain many riches. The prediction, therefore, is given of his entire collapse, together with the burden of them all hanging upon him (verse 25).

Now it is not easy to fix with certainty the exact date of this prophecy. Owing to the shifting nature of the Hebrew verb, and to the free use poetic writers often make of its various forms for one and the same tense, it is not impossible that it was written during Eliakim's *régime*. Yet it is better to keep to the observable time-notes in both parts of the chapter ; and these, together with the lively pathos, and the vividness of the scenic descriptions,

rather point to the conclusion that it was the time when Shebna was seen quarrying the hill-side, and that the subsequent events are only declared as prophecy. As regards certain works which are hinted at in the first part of the chapter, viz., those of collecting the water of the numerous springs (בקיעי not "breaches") of the City of David, of making a reservoir or artificial pool between the two walls instead of the old natural pond, and of destroying houses in order to build up a wall (verses 9–11 ; cf. 2 Kings xx. 20 ; 2 Chron. xxxii, 4, 5, 30), these are undoubtedly referred to as works done before. However, the thing we ought to expect as a proof that there was a quarrying which was the immediate cause of the prophet's writing, is an allusion to it in the first part as well as in the second ; because, in all likelihood, both parts were written at the same time. Now the sepulchre is not mentioned in the first part ; nor was it likely in itself to have given such great offence as to be the cause of these solemn utterances. Shebna only did there what was the custom of his age and country to do. But the sepulchre may have been only one of the objects of this quarrying ; whilst another, though not mentioned distinctly, may have been the chief cause of these severe denunciations. Such an object, indeed, and the allusion we are seeking, can, in my opinion, be discovered together in a few words in verse 5. There the prophet says : "For a day of trouble, and treading down, and consternation with the Lord of Hosts in the valley of vision is"—what ? The words which follow, מקרקר קר וישוע אל ההר, have greatly embarrassed translators. But is there anything against my rendering them "is that of him that quarrieth the wall (*i.e.*, the natural wall or the face of the rock) and of widening along the mountain ?" If there is nothing against this—and I believe it expresses a very natural signification of the words—then consistency runs through all the parts of the chapter, and then also what an important incident in the history of Jerusalem is here brought to light, but would have been lost without this notice of it !

The picture represents an extensive widening of the valley. Shebna seems to be the chief mover of the undertaking, using his position for the purpose of promoting it, and apparently at the same time making it a means of furthering his own interests. Though the sepulchre mentioned at verse 16 were not a reality but a predictive hint only, yet some selfish end was clearly mixed up with his interest in the work. Eliakim, on the other hand, then evidently in an inferior position, was probably opposed to it. Many people are on their flat Eastern housetops, debating the advantages and disadvantages of the work with much excitement and noise, the majority of them perhaps also watching its progress with demonstrations of joy (verses 1, 2). Then comes the royal prophet, more excited and more agitated with deep-felt feelings than all, and denounces the work together with other national follies of which they have been guilty on former occasions, as matters of weeping and consternation rather than of joy (verses 4, 5). For this work seems, moreover, to have been commenced soon after a battle which was fought perhaps in the immediate neighbourhood of the scene. The results of that battle are forcibly

described in another graphic verse (verse 3), which, although written with exquisite characteristic parallelisms, has been greatly misunderstood, but should be rendered thus:—"All thy officers who have fled together from the bow are bound. All thy captives" (*i.e.*, the prisoners thou hast taken) "who were bound together from afar have escaped." What, then, under these humiliating national circumstances, will be the result of this widening of the valley that was now being done under Shebna's auspices? Verse 7, whether it is history or prophecy, was undoubtedly written to point out this result or the kind of result which they should expect. "And it came to pass that the best of thy valleys were full of chariots" (*i.e.*, the chariots of Elam and Kir mentioned in the preceding verse), "and horsemen set a firm foot in the gate." But we do not know, unless it can be ascertained from the rock itself, whether the prophet's righteous indignation and inspired denunciation resulted in the immediate relinquishment of the work.

My question, therefore, now is, Can a hill-side be found with an escarpment which looks like a widening or the beginning of widening of a low entrance into Jerusalem? If so, and if a sepulchre can also be discovered in a prominent position in the wall, it is that of Shebna, and a most difficult chapter in the Bible is explained. I only add, in conclusion, that, though the sepulchre be found, Shebna's bones will not be found therein; because (according to verse 18) he was ultimately to be a prisoner and to die in a broad land—*i.e.*, in a land that is flat and has no rocks for sepulchres: therefore far away from Jerusalem, near which there is hardly any flat country at all.

E. Flecker.

BOUNDARY BETWEEN "JUDAH AND BENJAMIN."

Even with the great progress we have made in the knowledge of the Holy Land, the accurate laying down of the *boundaries of the twelve tribes* of Israel presents much difficulty. When one reads the double descriptions of the boundary between "Judah and Benjamin" (Josh. xv, 5–11, and xviii, 15–19), it seems, as so many places and points are mentioned, and since we possess such an accurate map of the Palestine Exploration Fund, that to trace this boundary out on the map would be an easy matter. But if one tries this he soon finds difficulties, especially at the most important part, viz., in and about the neighbourhood of Jerusalem.

As far as I have learned the country, and according to the studies I have made on this subject, I draw the boundary line as follows:—According to Joshua xv, 5, and xviii, 19, the boundary began towards the east at the "bay" of the sea, or the small peninsula at the mouth of the Jordan—exactly speaking, from the mouth of "Khaur el Kutuf;" it went in a north-west direction over to the "Khaur (or ravine) Wâdy

Makarfet," to the point where it breaks through the old bank of the river, and then along this ravine to a point having "Beth-hoglah" in some distance opposite in the *north*. This town[1] was, as I am persuaded, situated at or near the present "Kusr Hajleh," and the spring, north-east of it, had the name from the town. The triangle-shaped tract of land, lying between the Jordan—the base line—and the lines in the north, the old bank of the river; in the south, Benjamin had the already mentioned boundary line, called by the Arabs "Ez Zôr" (forming the two other lines). It is called "Ez Zôr," as every one passing through it has to do with difficulties; and it is fatiguing, for the many water ravines and swampy places.

The boundary line went along this ravine, "Makarfet," further on to "Beth Arabah." The name "Arabah" is identical with the present word "Ghor" (a broad wâdy greatly depressed), and "Beth Arabah"[2] was the inhabited place therein. I think it is the present "Mekur es Sidr"—meaning excavations and caves in the slopes of the ravine—the boundary running in the bed of the valley; therefore the southern caves, or "Beth Araba," are belonging to Judah (Josh. xv, 61), and the northern to Benjamin (xviii, 22). It is to be understood that on the banks of the ravine may have stood also *built* houses, embraced with some fence.[3] The line went in the ravine up to the foot of the mountains, and there to the "stone of Bohan," a "white-striped rock," on one of the first heights—I think the one on which foot the Wâdy "Makarfet" comes out, and another smaller one enters into it. From here the line went into the valley of Achor (verse 7). "Valley Achor" was in the neighbourhood of Gilgal (Josh. vii, 24–26), and I am convinced it is the "Wâdy Umm el Bucimat," meaning the "mother of the door of death;" and the Rujm "es Shemâliyeh" there is the heap of stones the children of Israel put over Achen and his family. Rujm Shemaliyeh means the "northern heap" of stones, in opposition to another one in south, called the "Kebliyeh," or southern. "Achor" means "trouble," grief," and "sorrow," and the present name implies the same idea; but there are promises (Hos. ii, 15, and Isa. lxv, 10) of a better time. Some consider the Wâdy Kelt to be the "valley of Achor;" but this cannot be, for the Kelt is a narrow, deep gorge, with a river bordered with bushes and thickets, and certainly not convenient (nor advisable) for the executions of people—this wants a dry (broken) valley; and further, the Kelt is too near to the northern boundary of Benjamin and Ephraim according to Joshua xvi, 1, 2.

Verse 7 is in the Hebrew (and in all the translations to which I had access, which differ greatly) very difficult at first. But one has to keep in mind that here the line went through a complete wilderness, and so no names or places could be mentioned, till it came to cultivated land, full half-way up to Jerusalem, and there is "Debir" mentioned, a town,

[1] Hieronimus gives it three miles from Jericho, and two miles from the Jordan.

[2] Compare Joshua xviii, 18, where the German Bible gives "Gefilde."

[3] And so forming a town.

or village rather—as in the enumeration of towns Debir is not mentioned (the one spoken of in Joshua xv, 49, is near Hebron)! Between the "Valley of Achor" and "Debir" "Gilgal" is mentioned in Joshua xv, 7, which is given in the parallel passage more completely as "Geliloth" (Josh. xviii, 17), meaning the round conical white chalky hills, which are numerous in this wilderness, and distinct from those at Jericho or on the banks of the Jordan (Joshua xxii, 10, who therefore said: those which are at the "ascent to Adunim, which is on the south side of the river," thereby clearly describing the chalky hills, and above the high group of red looking hills, on which are the ruins of an ancient fort[1] and of a Khan called "Khan Hathrûrah;" and which place is generally taken as the Adunim by all writers. West of them, a more level tract of land, and already cultivable, is called "Thoghret ed Debr," which Rabbi Schwarz translates the "meeting-place of Debir," referring to one of the stations, where the Israelites went up to Jerusalem for the feasts. The name is taken from the neighbouring Debir.

Debir must therefore be sought in the neighbourhood of this place. Half-an-hour south of this plain, in the same valley (but lower down), where several valleys unite, we find on the map "Umm el Rujm," *i.e.*, the *mother of stone heaps*, and this place I consider to be the ancient Debir, and belonging to Judah, as the boundary coming up from the upper end of the valley Achor (which for a time has in its upper part a north direction, and the white chalky hills above its upper termination to "Adunim," nearly along the present road to the neighbourhood of Debir to the present "Thoghret ed Debr." Its name is derived from the neighbouring village from here (Debir or "Umm er Rujm"); the line went westwards, up the valley, and finally to the Water en Shemesh, and further on to En-Rogel (verse 7). En-Rogel is generally believed to be, and is without question, the present Bir Ayoob below Jerusalem. But where is En Shemesh? Robinson, and many others following him, think to find it in Ain Nond east, below "Azirieh," or Bethania. But the name does not agree, and so we must look for another one elsewhere. The name "Es-Shemesh" occurs in this district three times. The first is a cave, "Mogharet es Shems," north of the Wâdy Kelt, opposite the Khan Hathrûrah, and cannot be the place looked for; the other is a rock, "Arak es Shemes," south of the Jerusalem road, and from Thoghret ed Debr half-way up to Jerusalem: it is not the place looked for. The third is the site of an ancient village or town north of Jerusalem, east of the Nablus road, called now "Khurbet Soma," *i.e.*, the "Ruins of Sama." In this word we find the original root of the word "Es Shemes"—and many other reasons make me believe that this site is the ancient "En Shemes," although there is now no spring, or 'Ain, but only a very large cistern, which was formerly an open pool![2] We must remember that in this district there are to-day

[1] Talat ed Dumm.

[2] It is to be remarked that the text does not say Ain Eshemes, but the "*waters* of Es Shemesh."

only a few springs. It is clear that many former springs have in course of centuries entirely dried up, or now only flow a short time, after heavy rains; of this sort I know a great many. So it may have happened with the "En Shemes." Further, the words "Ain" and "Beth" are so often mentioned in the Bible, and also amongst the Arabs of this day, that they appear often synonymous, so that one is sometimes used for the other. Joshua xv, 10; 1 Samuel, vi, 12–20, is "Beth Shemes," now called by the natives "En Shemes," although there is no spring. And so may "Khurbet Soma" in Joshua's time be called "En Shemes;" afterwards, in the time of the Kings, it was called Beth Samys, and so the Septuagint has it throughout.

In 2 Kings xiv, 11–13, and 2 Chron. xxv, 11, we read, that Amaziah, King of Judah, would not hear advice; so Jehoash, King of Israel, made war and came up, and both kings "looked one another in the face at Beth-Shemesh, which belongeth to Judah," and Amaziah was beaten, captured, and 400 cubits of the walls of Jerusalem (in the northern direction) was broken down by Jehoash. It is evident that *this* Beth-Shemesh cannot be that above-mentioned, situated in the plain; for the distance from Jerusalem is too great, and no reason can be found to transplant this skirmish there; but, which was quite natural, Jehoash went over the boundary, marching towards the capital, Jerusalem (this boundary being a few hours north of Jerusalem, at Bethel), and when Amaziah heard this he went also out against him, and they met one another on the high flat ground at Khurbet Soma, the ancient Beth-Shemesh, near Shafat. To such a conclusion there are good reasons. I draw, therefore, the boundary line from Debir (in the neighbourhood of Khan Hathrûrah), first westwards up the Wâdy Sidr, along the Jerusalem road, till, at the point where the latter crosses over a ridge to a more southern valley, the line remaining still in Wâdy Sidr, and going along the traces of an ancient Roman road, to the place Deir es Sidd, and then up the Wâdy Sulim, up to the Khurbet Sôm'a; the ancient En Shema, and from here, bending at a right angle, southwards along the Nablus road to Jerusalem, and through the Damascus gate down the Wâdy (Tyropœon) to En-Rogel or Bîr Eyûb. In doing so, Jerusalem becomes cut in two parts: the eastern part belonging to Judah, the western to Benjamin. That such a line is correct we see from the parallel passage, Josh. xviii, 16, 17, where it is clearly stated, that from En-Rogel (verse 16) it went northwards to "En-Shemesh," which, therefore, fully agree with the present Khurbet Sôm'a. That Jerusalem was divided to the two tribes we learn also clearly from the Scriptures, Josh. xv, 63; it is said: "The children of Judah could not drive out the Jebusites, but dwelt with them unto this day;" but in xviii, 28, we find Jerusalem enumerated among the cities of Benjamin, and said to be Jebus (compare also Judges xix, 10, and 1 Chron. xii, 4). So these passages seem one to contradict the other, when Jerusalem will be taken as a whole allotted only to one tribe, and one finds many and curious explanations of the commentators to reconcile these passages. All difficulty falls away when the boundary is drawn as I have done. That both tribes had part of

Jerusalem, the Talmud also states, and hence Rabbi Schwarz makes the Tyropœon the same thing as the Valley of the "Son of Hinnom," and the latter to the "valley of the giants," or Rephaim, but nothing of the following agrees with the state of things.[1] The Talmud says that the boundary line went even through the Temple, and over one corner of the altar of burnt-offering,[2] so that the Temple proper was situated in Benjamin, and quotes Gen. xlix, 27. But one would think the blessing to Judah, Gen. xlix, 8–12, would rather indicate the government and central point of the people, which was the Temple, to Judah. So in the chief point, that the boundary went through the town, they are right, but in the minute details they fall, according to my understanding, under the sentence (Mark vii, 8), "and many other such-like things ye do."

From "En-Rogel" (Bîr Eyûb) the boundary went (according to verse 8) up in the valley of Ben Hinnom, on the south side of the Jebusites, to the "top of the mountain lying to the west," at the point where the valley makes a sharp bend towards north—this mountain was situated on the north end of "Rephaim" over the "valley of the giants," and by this we see it is the present "Ras ed Tabus" (south-west of Jerusalem). From here the line went to the "waters of Nephtoah," generally, and with good reasons, considered to be the "Ain at Lifta." It may appear strange that in verse 8 and beginning of verse 9 the several points are one so near the other—as in the rest of the description generally, are of great distances. But this is quite natural, just as here was Jerusalem and the centre of the people, and two tribes having shares in its territory, the boundary had to be given very exactly and minutely. The more so as, at that time, the two inhabited parts were small places or towns, yet both belonging to the Jebusites! Further, it was necessary to state minutely, as the line made at En-Rogel a sharp angle, which otherwise would not have been properly understood. From the "waters of Nephtoah" the boundary went on to the cities of Mount Ephran (*i.e.*, Ephraim) to Baalah and Kirjath-Jearim" (verse 9). It is easy to be traced from Lifta down into the valley ("Wâdy Beit Hannina"), and westwards along it till "Beit Tulma," where the valley bends towards south, and as it is said "went to the cities of Mount Ephron"—it is clear that this valley formed the boundary between the mountains of Judah and the mountains of Ephraim. From "Beit Tulma" the line ascended the slope of the mountains, left "Khurbet Beit Mizza," the ancient "Mirza," to the right in north as belonging to Benjamin (Joshua xviii, 26); also the old Weli, or monument, "Abd el Aziz," a very ancient-looking place, with a monument as in other "Mukams," and the "Kubbet Rahil," near Bethlehem, and is overshaded by very old trees; close by it is a tank and some ruins of former buildings. The present name, "Abd el Aziz," is a modern and a Moslem one, but I was told the place is also sometimes called "Kubbet Rahil" (= Tomb or

[1] Talmud, Sebachim, liii, 2; Joma xii, 1.

[2] Even in this way the *eastern* part will belong to Judah, and so on, contrary to his own statement.

Monument of Rachel), and I think it is the one situated at the boundaries of Benjamin (1 Sam. x, 2), and distinct from that near Bethlehem where Rachel died—and is in the tribe of Judah; for the Benjamites made also a monument for their mother in their own ground, as I believe, and this would be it, as I have pointed out in an article on "Saul's Journey" (1 Sam. ix, &c.), which appeared in a German paper.[1] North of this place are the ruins of "Rume," and south some others, not entered in the large map, and Kustul; and westwards many other cities of Mount Ephraim. The line went from the top of this ridge downwards to "Ikbala," near south of the main Jerusalem—Jaffa road—it is situated at a spring in the valley, and forms a very idyllic corner of the earth. I consider it as a former place of "Baal," and from here the line went up to the town "Kirjath-Jearim." The text connects them both, which I explain so: that "Ikbala" has been the place for worship and for national feasts, the town itself was more west of another spring situated higher up, viz., the present "Abu Ghoosh;" it was at the time surrounded by forests or thickets, therefore its name "Jearim," but since this, thickets have disappeared, and reduced more west, and so it bears now the name "Anab," "Kuryet el Anab," = "town of the grapes," as there are now very fine vineyards."

Robinson and others, not knowing of a second "Kubbet Rahil," tried to draw the boundary line from the top of the mountains, west before the valley of Hinnom—in another direction as I have now described, and having gone over to Lifta—they trace a more southern route, in order to come nearer to Rachel's tomb, near Bethlehem. Robinson mentions, therefore Ain Yâlo (below Malnah) and also Ain Korius to be the waters of Nephtoa. But against such a supposition must be placed their *names*, and those are at too great a distance from Rachel's tomb, the first three-quarters of an hour, the latter fully one-and-half hours, a distance even greater than Rachel's tomb is from Jerusalem! So this will not do, and therefore Captain Conder goes on to say that the waters of Nephtoah[2] are the springs in the neighbourhood of Solomon's Pools, beyond (south of) Bethlehem. First the meaning of the word Nephtoah, implying a group of springs, and those can only be found at Solomon's Pools; and secondly, the boundary would then run over close at Rachel's tomb; and thirdly, quotes the Talmud giving Nephtoah as Etam. Agreeable as all this looks, it is open to great objections.[3] The name is missing, but this may be of little consequence; the great difficulty is, how to draw the line to Kirjath-Jearim? which then cannot be taken as Abu Ghoosh; and Conder therefore substitutes a Khurbet Erma, about two hours in south-west of Abu Ghoosh (or the above-fixed Kirjath-Jearim). By such a line, the tribe of Judah loses a great tract of land in favour of Benjamin, and further, the greater part of the cities in the Septuagint described to Judah,[4] viz.,

[1] "Zeitschrift des Deutchen," Pal. Vereins, 1881, page 247.

[2] *Quarterly Statement*, 1879, pp. 95–99.

[3] Joshua xv, 60.

[4] Several of these are made by W. F. Birch (*Quarterly Statement*, 1882, p. 61), which I will not repeat.

Sores (= Sarîs), Canen ('Ain Karim), Galem (B. Jala), Bether (= Bittir), Monoch (= Malhah), will fall to Benjamin! And then he finds no Mount of Ephron, which certainly means simply Ephraim, as I took it in the above. Further, if even the Khurbet Erma would be taken as Kirjath-Jearim, the line further on of the boundary will not do, although he traces it, but without any probability; its line goes backwards, crossing twice one and the same valley; whereas, when Abu Ghoosh is Kirjath-Jearim all comes right. To point out this it is necessary for me to explain this, although the last of the tribe of Benjamin ended at Kirjath-Jearim, and so, strictly speaking, the further line would not fall under the headings of this my paper.

From Kirjath-Jearim the line went westwards to the Mount of Seir; this is apparently Saris,[1] and passed along unto the side of Mount Tevrin, which is Chepalon. The long ridge from Abu Ghoosh to Eshnah is, according my conviction, the "Mount of Jearim," the mount of thickets, as it is still to-day to a great extent. The line from Abu Ghoosh westwards went therefore (about) along the present Jaffa road, and passing north of the village Sarîs—not further following the road and telegraph line down the valley, but crossing the ridge in west of Sarîs, in a southern direction, and going down on the side of Mount Jeram into the Wâdy el Hamar to Chessâlon, the present Kessla, which is on its south side. So to the north of it the valley and boundary run down, remaining in it till Beth-Shemesh, and going further on to Timnah (verse 10), where all is clear and correct.

There is no crossing of any valley; but the boundary is quite a natural one, and all expressions in the text come right, so I should think this is correct, and hence Abu Ghoosh is Kirjath-Jearim, and Lifta the Nethtoa, and Khurbet Sôm'a the En Shemes in the mountains, Umm Rujm Debir, and the chalky hills Geliloth, and so on.

Jerusalem, February, 1884. C. Schick.

ARCHÆOLOGICAL DISCOVERIES IN THE HOLY LAND AND SYRIA IN 1883.

(*Reprinted from the Times*).

I. Discovery on Mount Gerizim of a Marble Pedestal, ornamented with Bas-Reliefs and Inscriptions.

About the middle of last year an important archæological discovery was made in a celebrated locality of Palestine which had not previously supplied us with anything particularly interesting in the way of antiquities. Some works undertaken by the Ottoman authorities for the construction of a building at Nablous, the ancient Shechem, at

[1] The line passed not to the town but to the Mount of Saris, which is exactly the case when following the present road, on the ridge of the hills.

the foot of Mount Gerizim, brought to light a considerable number of fragments of sculptured marble. Among these was found a large pedestal of marble, about a mètre in height, triangular, or rather hexagonal, in shape, with three broad and three narrow sides, covered with bassi relievi and Greek inscriptions. M. Paulus, a talented sculptor resident in the Holy City, and the Governor of Palestine, His Excellency Raouf Pasha, whose enlightened zeal cannot be too highly praised, and who has taken steps to secure the preservation of this beautiful monument, kindly sent me as soon as possible different photographs of it. These I immediately communicated to the Academy of Inscriptions and Belles-Lettres with some explanations, which up to the present time have remained unpublished, and which the public may perhaps be glad to receive. The real use to which this pedestal was meant to be applied is not certain. It recalls to mind the triangular altar-shaped pedestals of certain ancient candelabra, which are in like manner ornamented with sculptures. On one of the broad sides, quite at the top of the cornice, a Greek inscription of five lines is engraved. I have been able to decipher a portion of it, in spite of the smallness of the photographic reproduction and the shadow cast by the cornice, which hides many of the characters. It is a metrical inscription. On the narrow side, to the right of the preceding side, is engraved another Greek inscription of nine lines, which is absolutely undecipherable in its present state, the characters being not only on a microscopical scale, but, in addition, distorted by the perspective.

Each of the three large sides is divided into two compartments, in which are sculptured in bas-relief different scenes taken from the Hellenic mythology, viz., six subjects in all. Several of these scenes are accompanied by short Greek epigraphs, engraved in the field, giving the names of the principal personages who are engaged in the scene represented. The three lower scenes, which are the most distinct and the easiest to identify, belong to the cycle of the legend of Theseus. They follow one another in a relatively logical order. In the first we see the young hero raising the stone under which are hidden the sword and the shoes of his father Aigeus; three women, including probably his mother, are taking part in the scene. In the second, Theseus is in combat with the Minotaur, who may be recognised by his bull's head; on one side are the young Athenians, whom Theseus has come to set free, and a kind of cavern, indicating the monster's den; in the field I noticed the traces of an inscription, giving the name of Meinotauros, in the accusative. In the third, Theseus has triumphed over the robber Corynetes, who is stretched at full length at his feet; the conqueror, erect, appears to be leaning on his own club and holding the iron club of the robber of Epidaurus; three other persons, so much mutilated that they cannot be with certainty identified, are standing by the side of the robber's corpse. I pass now to a description of the upper compartments. The first of them shows us Artemis, Apollo, and Latona, with their names inscribed above their heads; on the right is the serpent Python, his

head pierced with an arrow discharged by the divine archer. In the second scene a personage, probably Demeter, passes to the left, mounted in the celebrated car drawn by serpents. Another woman, lying in the shadow of a tree that crowns a height, and leaning on her right elbow, holds a palm or a cornucopia and has a garland of flowers on her breast; it is perhaps an indication of the country personified, or the representation of a telluric divinity. In the third upper scene, which appears to have greatly suffered, and which is imperfectly given in the photograph, a manly personage is seen, probably Hercules, half-kneeling down and contending with two serpents. To the right and left two women are hurriedly fleeing from the place of combat.

Such is, in a summary form, the description of this very curious monument, which derives its chief interest from the place in which it was found. It belongs to the Græco-Roman epoch, and must have come from the Pagan temple which was erected on Mount Gerizim, and which is so frequently reproduced on the Greek Imperial coins of Neapolis. By what association of ideas did these Greek legends come to be localised at Neapolis? It appears that the ancients had established between the ancient Shechem (transformed at the Græco-Roman period) and Athens one of those assimilations more or less arbitrary which were customary with them. I will confine myself without insisting on my contention—to pointing out three concordant facts in support of this suggestion. On the coins of Neapolis the Mount Gerizim, the Temple which surmounted it, and the grand monumental staircase which are represented, recall to mind, in a singular manner, the monetary representations of the Acropolis; the greater part of the scenes figured on our monument are borrowed from the Attic cycle (Theseus and Demeter); finally, Attica is certainly mentioned in the inscription. In order to pronounce an opinion definitively on this point, and on other secondary points, it will be necessary to wait for better reproductions of the monument. Above all, the inscriptions must enlighten us, by informing us in what conditions it was dedicated. I have asked for "squeezes," which I trust will enable me to settle this question. In the meanwhile, this monument remains none the less one of the most interesting which has been hitherto found in Palestine. It is much to be regretted that the occasional excavations which led to its discovery have not been resumed and continued in a methodical manner, as they might produce results of the greatest importance.

II. Discovery of Antiquities at Emmaüs Nicopolis.

The discovery of the bilingual inscriptions of Gezer has permitted, by consequence, the determination with a mathematical certainty, so to speak, of the position of the ancient Emmaüs Nicopolis at the Arab village of Âmwâs, situated on the road from Jaffa to Jerusalem, between Ramlé and the point where the road penetrates into the mountain mass of Judah. Âmwâs is one of the points of Palestine where excavations might be made with fruitful results from an archæological point of view. Already at the

time of my last mission in 1881 I collected there some interesting monuments, among others some Roman inscriptions and a marble capital bearing a curious inscription, and coming probably from the very ancient basilica which was erected at Emmaüs. This inscription, incontestably Christian, was in effect bilingual, Greek and Hebrew—"One only God! May His name be blessed in eternity!" The Hebrew part, strange to relate, was in archaic characters, analogous to those of the Jewish shekels. If the stela of Mesa may be considered as the Alpha of Hebrew epigraphy, the capital of Âmwās may with good reason pass for its Omega.

Since my departure some excavations undertaken for pious purposes by a French lady, Mademoiselle de Saint-Cricq, have been carried on under the direction of Captain Guillemot in the ruins of the basilica of Âmwās, already excavated by me in 1874. They have led to new finds which M. Guillemot has kindly communicated to me,—a cruciform baptistery; fragments of a vase in terra-cotta with a handle in the form of a cross, and the invocation, "Lord! remember (thy servant!);" a fragment of the lid of an ornamented sarcophagus; an ancient quarryman's bore; fragments of funereal inscriptions in Greek, &c. But that which specially deserves to be noticed is a discovery which has realised one of my predictions. I said in one of my first reports on my mission of 1881 (p. 33), in discussing the difficult problem of the dedication of the basilica of Âmwās:—

"Then is then, in my opinion, among other chances, that of finding some pavement of historical mosaics, perhaps accompanied by inscriptions which will inform us more fully as to the past history and the origin of the church than all the suppositions to which we are at present confined."

The excavations of M. Guillemot have, in fact, brought to light a mosaic pavement close by one of the apses of the ruined church. This pavement contains an inscription, unfortunately much mutilated, but the general sense of which can be gathered. "The mosaic work of the church of . . . under the episcopate of . . . the day, the month, the year." One may compare, among others, the tenour of the dedications of the mosaics at Tyre and Neby Younès. It is much to be regretted, however, that it is the very parts of the dedication which contain the key to this historical enigma that have disappeared.

Another interesting discovery made at Âmwās is that of a Jewish sepulchre, inviolate, cut in the rock, according to the habitual plan; a square chamber with nine *loculi* or *koukim* disposed three on three of the walls; in the centre were two ossuaries or *osteothèques* in the form of *caissettes* in limestone, surrounded by large vases in terra-cotta and phials commonly called lachrymatories.

III. Votive Paten Discovered on the Mount of Olives.

On the eastern slope of the Mount of Olives there has been found an interesting specimen of Christian archæology in Palestine. The Archimandrite of the Russian mission at Jerusalem, into the possession of which

it has entered, has kindly sent me a "squeeze" and a copy, which have enabled me to interpret it.

It is a disc of greenish bronze of 13 centimètres in diameter, mounted on a kind of little foot. In the middle a large cross is cut with equal branches, on which are engraved five characters, thus arranged :—

Φ
Z Ω H
C

which I read Φῶς, Ζωή, "life, light," those two sacred words denoting the two essential qualities of Christ. All round there is engraved a long Greek inscription, a little damaged in certain places, which I propose to translate thus :—"Mary (or Martha ?,) receive the offering of those whose names the Lord knows."

I believe that this little object represents to us a paten—the *diskos* of the Greek Church, on which were placed the particles of the eucharistic bread, the "living coal" (compare "life, light") to which the Oriental liturgies liken this symbol of the body of Jesus.

IV. Discoveries of Inscriptions in the Lebanon.

M. J. Löytved, Danish Vice-Consul at Beyrouth, who engages with zeal and success in researches on Syrian antiquities, has communicated to me reproductions of a series of inedited monuments which deserve a special mention.

These are, first of all, three Roman inscriptions coming from the ruins of Deir el-Kalá, at Beit Meri, in the Lebanon. This locality has already attracted the attention of archæologists by the existence of an ancient temple dedicated to a certain Phœnician god—Baal-marcod, who appears, as the etymology of his name indicates (*rakad*, to dance), and by the very tenour of certain inscriptions already known, to have presided over dances. The first of these new texts is a votive inscription made to Juno Oricina by Caius Julius Maximus :—

IVNONI ORI
CINAE C IV
LIVS MAXI
MVS FECIT
V.L.(M).S.

The second is the dedication of an altar offered to the well-known Roman goddess Mater Matuta, on the reply of an oracle of Juno, by a woman, Flavia, daughter of Titus, Nicholais Saddane :—

MATRI.MATVTAE
FLAVIA.T.FIL.NICOLAE
SADDANE.(ANTISTI)
VETERIS.EXPRESPONSO
DEAE.IVNONIS.ARAM
FECIT.DEDICAVITQVE

The interpretation of the third line presents certain difficulties, but this s not the place to stay and discuss them. I would remark, however, that if *Saddane* is really, as it appears to be, the proper name of a woman, it approaches very near to the name of the Queen Saddan engraved in Syriac and in Hebrew on the sarcophagus coming from the tombs of the Kings of Jerusalem. I have already had occasion to say that I considered *Saddan* as the Semitic and national name of Helen, Queen of Adiabene. It is not impossible that the Flavia, daughter of Titus, of Beit Meri, was attached by the ties of parentage or affranchisement to the royal family of Adiabene, several members of which, after the taking of Jerusalem by Titus, may have become adherents of the conqueror and entered into the *clientèle* of the Flavians on taking their names, following the ancient usage. This is what the Jewish historian Josephus himself did when he adopted the surname of Flavius.

The third inscription of Beit Meri is a dedication engraved on a stone over a window :—

EX. VOTO. M. TITTI. RE...

M. Löytved has sent me besides the drawing of a large Roman inscription engraved on the rock between the 16th and 17th kilomètres on the road from Beyrouth to Damascus. Unfortunately, it is too damaged to be deciphered with certainty. It will be necessary that it should be examined on the spot by a skilled epigraphist. I believe I recognise here the mention of the *Colonia Damascena.* I point it out to the attention of learned tourists who may have the opportunity of travelling in those parts.

V. New Inscriptions in Hauran.

M. Löytved sent me also the copy of four Greek inscriptions collected by him in Hauran. They appear to me to be unpublished, and they ought to be added to those, already numerous, which M. Waddington, our present Ambassador in London, found in the ancient Auranitis. The first comes from Numr, a locality situated at an hour's distance to the south-east of Harra, and not marked on the maps. It is engraved on a small altar, on which has been traced, at a comparatively recent period, a large cross. It is the dedication of the monument made by a certain Zenon, son of Kadmos. The second name is interesting. I showed a long time ago that that of Zenon, frequently borne by Phœnicians of the Greek epoch, was the Hellenic equivalent of a Semitic name, composed with the name of Baal. The second inscription comes from Numr. It is only a fragment containing thirteen lines. It appears to me to have reference to the erection of a boundary-stone marking the limit of two ancient villages, whose names are given, but are badly preserved (one of them appears to be Namara). The other two inscriptions come from Djasim, a small locality, also situated in Hauran. They are both Christian, and one appears to contain a passage taken from the Greek version of the Psalms.

A little later on, M. J. Löytved sent me the copy of twenty-five new Greek inscriptions, collected by him during his tour in Hauran, in company with M. P. Schroeder. They come from various localities of Auranitis, from Trachonitis, from Batanæa, and from the ancient Nabathæan kingdom. Amongst them I point out an inscription dated the year 5 of Hadrian (at Ahiré in Trachonitis), an inscription of a soldier having belonged to the Third Legion (at Soneida of Batanæa), an inscription dedicated to Marcus Aurelius Antoninus, mentioning the theatre and the city of Bostra, a stela dated the year 95 from the foundation of the city (at Irbid).

VI. Arabic Inscription anterior to Mohammed.

Knowing that M. Löytved was about to undertake an excursion in those parts of Syria, I urgently requested him to have the goodness to take for me the "squeeze" of an extremely important text, which, up to the present time, has only been known to us by copies, due to MM. Wetzstein and Waddington—copies still leaving room for doubts, in spite of the care taken by their authors. It is a bilingual Greek and Arabic inscription engraved on the lintel of an old chapel or *martyrion* at Harran, in the Ledja. That which gives special interest to this inscription of three lines, mentioning the construction of the *martyrion* in honour of St. John, by a tribal chief or phylarch, "Asarahil, son of Talemou," is that it is dated with an entire certitude after the local era of Bostra, the year 463 corresponding to the year 568 A.D. Then it results from this that the Arabic portion, written in pure Neskhi, is anterior by fifty years to the Hegira, and consequently engraved before the birth of Mohammed. During the last ten years I have pointed out the *desideratum* to all the persons of my acquaintance who had the opportunity to explore this region, but without success. M. Löytved has had the kindness to do what I could not obtain from his predecessors, and he has just sent me a very good impression of this precious inscription. Thanks to this document, I hope soon to be in a position to cast a new light on the most controverted parts of the inscription of Harran, and I am glad to take this opportunity of thanking M. Löytved for the great service which he has rendered to science in this matter.

VII. Spurious Phœnician Inscription on a Bronze Figure in the British Museum.

I have just noticed in the show cases of the British Museum a curious little monument which was acquired this year, and which, it seems, ought to be classed in the catalogue, already so rich, of the false or falsified antiquities of Syria. It is a little bronze representing a quadruped—a deer apparently, or, better, a hind—of about $2\frac{3}{4}$ inches in length. It is pierced right through, from the back to the belly, by a hole, which must have served to fix it on another object. The feet are broken. This little figure, brought it is said from Tartus, is certainly genuine. But that which is not genuine is a Phœnician inscription of five characters which it bears engraved on the left side, and which I read *Gadyaton* (the proper

name of a man, which signifies literally *Gad has given*). It has a good Semitic physiognomy and sureties in the collection of Phœnician proper names. Nevertheless, it must have been engraved afterwards by a modern forger, upon the little figure, in order to increase its market value. The forger must have been inspired with the legends on certain Phœnician seals. The letters have a stiffness, which betrays a modern hand. The graver has, in places, exfoliated the pellicle of the antique oxide, and, in spite of the precautions taken to cover over the engraved lines with an artificial patine, one can perceive here and there brilliant points of the metal.

VIII. Discovery of a Fragment of an Imperial Inscription at Jerusalem.

In the course of the summer of 1883 excavations were undertaken, under the direction of the Archimandrite of the Russian Mission at Jerusalem, in the vast tract of ground belonging to the Russian Government and situated east of the Church of the Holy Sepulchre. This point is one of the most interesting to explore for the topography of the Holy City, because there is a chance of finding traces there of the second enclosure wall, a problem with which the authenticity of the Holy Sepulchre is intimately connected. I myself made there, during my mission of 1873–4, some excavations which have led to certain results.

The Archimandrite, in a letter dated the 27th of December, 1883, informs me that the new works which have just been undertaken have brought to light the threshold of a large antique door and a fragment of a Roman inscription. It is a piece of flagstone 0·50 mètre in length by 0·41 in width, with these characters :—

IMP . . . .
PART . . .

The word IMP[ERATOR] evidently indicates that we have to do with an Imperial inscription. The surname of PART[HICUS] can only be applied to Trajanus, who first assumed that title after his expedition against the Parthians, or to one of the Antonini who bore the name after him.

New Forgeries at Jerusalem.

For some little time past the forgers at Jerusalem appear to have applied themselves to the cultivation of another branch of industry. I say "for some little time past," because in the year 1880 there was no question of it at Jerusalem, and if the industry had existed, some product of it would certainly have fallen into my hands during my stay in Palestine at that period. I refer to the manufacture of terra-cotta lamps.

The forgers have had the ingenious idea of imitating those little antique lamps, belonging for the most part to the Christian epoch, which have been found by hundreds in Jerusalem and its neighbourhood.

Several of them—I am speaking of the authentic ones—bear very curious Christian symbols, and some of them even Greek inscriptions, the first specimen of which I made known in 1868. They are pious eulogies, such as ΦΩC $\overline{\text{XY}}$ ΦΕΝΙ ΠΑCΙΝ—"the light of Christ shines for all;" ΑΥΧΝΑΡΙΑ ΚΑΛΑ—"beautiful lamps," &c. This latter epigraph has the advantage of giving us the very name of these lamps, of these *lychnaria*, which probably served as well for profane as for sacred purposes.

Nothing is more easy than to counterfeit these little *lychnaria* which were cast in rude moulds. The two portions—the upper and the lower—were moulded separately, and they were then put together before the baking of the clay. I discovered and brought away with me several of these antique moulds used in Palestine.

I do not know whether the forgers have made use of upper castings (*surmoulages*), or whether they have reproduced in their entirety certain models which they can hardly have failed to procure. At all events, they have put in circulation a considerable number of false *lychnaria* and have multiplied them in abundance, thanks to the expeditious process of moulding imitated from the ancients. In order to make the fraud more profitable, they have ornamented their wares with fancy inscriptions. Having once set themselves to this task, they do not do things by halves. Greek Christian inscriptions, like those which are already known, were but small beer for them. Hebrew inscriptions, if you please!

Here, for example, is a little clay *lychnarion* which is worth its weight in gold. It is circulated at Jerusalem in several copies, and I recommend it to tourists. On the upper part is represented a palm tree, separating into two sections a group of four archaic Hebrew letters, which are read without difficulty—"Simeon." The counterfeiter has simply copied the complete type of the reverse of one of the Jewish coins struck during the last revolt. It is the coin which is ordinarily attributed by numismatists, though the correctness of the statement is open to discussion, to the famous Barcochebas. A lamp with the name of the Jewish hero! That is indeed a "wonderful lamp." Unfortunately, here Aladdin probably calls himself Selim el-Kari, and it is with the story of the Forty Thieves that we have to do.

I am informed from Jerusalem that there was found in a cavern near Hebron, during the summer of 1883, a quantity of terra-cotta lamps of the same type, description, and size, bearing on the upper part a similar inscription in illegible characters of Semitic appearance. Although this "find" appears to me to be very suspicious, I suspend my judgment regarding it until I am more fully informed.

CH. CLERMONT-GANNEAU.

THE CITY AND TOMB OF DAVID ON ACRA, COMMONLY CALLED OPHEL.

"VERIFY your references," said a great writer, especially, I would add, if you touch the Jerusalem controversy. Through neglect of this safe rule, in reference to the City of David, Captain Conder has fallen into a few errors, which in self-defence I must unmask.

(1) He claims the authority of Mr. Fergusson (*Quarterly Statement*, 1883, p. 194), in favour of Acra being west of the Temple, putting him into the same scale with Sir C. Warren. It is startling to find Mr. Fergusson (*cedere nescius*) thus in 1883 turned into a make-weight (against me) in favour of the *western* site, when in 1863 he wrote (Biblical Dictionary, *Jerusalem*) "in favour of the assumption that the hill Acra and the citadel Acra were situated on the *northern* side of the Temple." If these words can be forced into helping Captain Conder's theory, then one is reminded of Canon Williams' exclamation: "Why, at this rate, any passage in any book will be sufficient in itself to settle the whole controversy!"

(2) Captain Conder rightly adheres to the opinion that Uzziah was buried on Ophel, but 2 Kings xv, 7 (as already pointed out), distinctly states of Azariah (*i.e.*, Uzziah) that "they buried him with his fathers, in the City of David." Therefore the City of David, in whole or part, was on Ophel. What could be clearer? Captain Conder, however, does not admit this conclusion. He thinks (*Quarterly Statement*, 1884, p. 26), "that every passage in the Bible is satisfied, without its being necessary to place the City of David (on Ophel), in a practically impossible position." Now he is an unsparing opponent of "final denial of some or other statements of the ancient accounts," when Josephus is treated as untrustworthy. It is the more surprising, then, that overlooking, as it were, 2 Kings xv, a still more ancient account, he should put himself in one scale with the oldest record in the other, and then describe Ophel as an "impossible position." Others will rather conclude that his theory is impossible.

(3) "*Sepulchres within Jerusalem transferred outside the walls.*" (*Quarterly Statement*, 1877, p. 134; also "Handbook," p. 341.) The idea of a procession of Jews bearing in solemn pomp a rock-cut sepulchre out of the Holy City suggested difficulties. Accordingly a friend or two verified for me Captain Conder's reference to the Tosiphta (Baba Bathra, chapter I), on which he builds his theory that the Tomb of David is probably to be identified with the Tomb of Nicodemus (so called), since the latter is "the only undoubted Jewish tomb in Jerusalem."

It is quite time to verify this reference when Captain Conder can state that his theory "has been favourably received by many persons well acquainted with the history of Jerusalem," a success which I have to own has not yet crowned any theory of mine. I reflect, however, that commonly the worse the error, the more it is believed.

Now as Captain Conder refers us to the Tosiphta, I presume he himself

is ready to stand by what it really says. Professor Theodores kindly gives me the following *literal translation of the whole passage*, which I beg to present as our contribution to the "Pilgrims' Text Society":—

"All graves are cleared except the grave of the king, and the grave of the prophet. Rabbi Akiba says: Even the grave of the king, and the grave of the prophet are cleared. Then people said to him: Were not the grave of the house of David, and the grave of Huldah the prophetess in Jerusalem, and never did a human being touch them. He said unto them: Hence it is shown that there was a passage for them by which the impurity was carried off to the brook Kidron."

Here first of all, as I half suspected (1883, 151) the Tosiphta says not a word about transferring (*i.e.*, transporting) sepulchres, but merely about bringing bones, &c., out of graves, as foretold in Jeremiah viii, 1.

The word פנה which Lightfoot had rendered by *removere*, is used in Genesis xxiv, 31, where surely Laban does not transfer the house to oblige Eliezer, but only prepares or clears it out; and again in Leviticus xiv, 36, where the plague-stricken house would hardly be transported to the priest, but rather emptied before he came into it.

Thus the rock-cut tombs which the Tosiphta implies had existed within Jerusalem are no doubt still in existence. Indeed, part of Ophel is, I believe, simply honeycombed with them. Therefore, if only one old tomb within Jerusalem is known at present, it does not follow that it is David's tomb, any more than a fresh tomb discovered near Jerusalem on its northern side is necessarily the tomb of Joseph of Arimathæa.

Further, Captain Conder finds in the tomb of Nicodemus ("Handbook," p. 342) a peculiarity answering, he thinks, to the description which Josephus gives of David's tomb. I do not myself detect the points of agreement; this, however, is of no moment, inasmuch as, if the tomb adopted by Mr. Conder be really David's, the Tosiphta supplies the missing link with a vengeance, in *a peculiarity three-quarters of a mile long*, for a passage from the tomb of Nicodemus to the Kidron could hardly be shorter.

Let us hope the Turks will permit some one to search for this passage, although I do not think it will ever be found. Yet what a triumph for Captain Conder if it could be traced to Tophet!

If he now rejects the Tosiphta, his theory at once falls to the ground, having no foundation left. As to the trustworthiness of the Tosiphta I need not give an opinion, as I rely for the true site of the City of David not on R. Akiba, but on Nehemiah. I will only point out that a position on the eastern hill is in the closest harmony with the tradition current among the Jews in the second century, while Dio Cassius speaks of the sepulchre of Solomon as collapsing in the reign of Adrian. Thrupp notes that the Paschal Chronicle relates that the sepulchres of David were entered from Gibeon twenty furlongs from the city. Can Gibeon be a corruption of Gihon?

After this successful sally on unverified references I invite the critics forthwith to make fresh approaches against Zion, the city of the *Gibborim* (Prov. xxi, 22) before the garrison completely demolishes the besiegers

lines, beginning with Colonel Warren's "Parallel" on his invisible Zion ("The Temple or the Tomb," p. 22).

If, however, my opponents, especially the R.E's., will accept the inevitable and join me, so much the better, as their professional skill would be most valuable in searching for the entrance to the Tomb of David on Ophel (so called).

Is it not to such work that the Committee are beckoned in the oracular couplet of an anonymous pilgrim ?

> "Est operæ pretium tumuli lustrare cavernas;
> Regia monstrabit putre sepulcra lutum."
> *Zion Sought and Found*, vol. i, p. 7.

This has been freely rendered—

> 'Tis worth your while 'mid Ophel's caves to pry;
> 'Here David sleeps,' his mouldering clay will cry.

NOTE ON JOSEPHUS AND THE LXX.

JOSEPHUS may have derived from the LXX his mistaken notion that Zion and the City of David, which are used as equivalent terms in the historical passages of the Bible, only meant just the same thing as Jerusalem.

This seems probable from the following :—

(1) In 1 Kings viii, 1, the LXX substitute *Zion* for *Jerusalem.*

(2) In 2 Chron. xxviii, 27, "In the city in Jerusalem" (Hebrew), which means "the City of David at Jerusalem," becomes in the LXX ἐν πόλει Δανίδ.

(3) 2 Chron. xxv, 28, "In the city in Judah" (Hebrew) becomes in the LXX ἐν πόλει Δανίδ. Possibly this was the true reading.

(4) In 1 Kings ix, 15, a confused reading may possibly give τὸν φραγμὸν τῆς πόλεως Δανίδ as equivalent to the wall of Jerusalem.

Thus in saying that David called Jerusalem the City of David Josephus is totally wrong ; but in saying that king after king was buried in Jerusalem, he is merely sacrificing the precision of the original Hebrew, which names the exact part of Jerusalem in which the royal sepulchres were situated, *i.e.*, in the City of David, or Zion (*Quarterly Statement*, 1883, p. 154).

W. F. B.